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AUTHOR Oyler, Charles: Swinney, Peggy
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ABSTRACT

Designed to emphasize the acquisition of job skills, job-practical knowledge, job-theoretical knowledge, and associative needs, this curriculum guide for health occupations education utilizes principles of competency-based education and is reflective of a training model approach to health occupations education. The first of three major parts constitutes a set of resource materials that focus on describing the framework of the health care field and on providing information generated by or appropriate to task analyses for related occupations. Part 2 is a guide for program development and is designed to assist the instructor in adapting learning activity packages (LAPS) to the needs of a particular course or program. The final part of the guide contains twenty-eight LAPS for topics such as orientation, historical medical events, safety skills, aseptic techniques, basic anatomical terms and components, and the skeletal system. Included within each LAP is the category, a statement of focus, activities, objectives, rationale, instructional aids, content outline, suggested learning activities, alternate learning activities, suggested evaluation measures, and a suggested vocabulary list. (LRA)

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CURRICULUM GUIDE FOR HEALTH OCCUPATIONS EDUCATION

Jack Witkowsky, Chairman
State Board of Education

Joseph M. Cronin
State Superintendent of Education
Illinois Office of Education

Originally developed by:

Charles Oyler and Peggy Swinney
Benton (Illinois) High School

Revised and expanded by:

Richard G. Allan, Ed.D., Project Director
Robert F. Kempton, Author and Researcher
Gayle Flannelly, Editor

U S DEPARTMENT OF HEALTH.
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
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INTRODUCTION

Parents, educators, and employers throughout the nation are becoming increasingly concerned with the needs of young people preparing themselves for careers. Students must develop practical, job-oriented skills as well as an understanding of the scope and potential of their chosen fields. Eventually they may require additional training in order to take advantage of new job opportunities resulting from technological changes affecting their career areas. Students must therefore have access to programs that provide counseling in the selection of a career, general education related to their chosen career, specialized training in that field, and employment services at many levels throughout their working lives.

The process of designing, implementing, evaluating, and revising a career training program must be similarly comprehensive. Input from employers in the field, educational management, instructional systems, and other relevant resources must be systematically integrated into an effective course of study. Procedures for promoting and maintaining cooperation among employers, educators, and other parties-at-interest are essential to keeping education in step with career development.

The *Curriculum Guide for Health Occupations Education* utilizes principles of competency-based education and is reflective of a *training model* approach to health occupations education. Emphasis is placed on the acquisition of job skills, job-practical knowledge, job-theoretical knowledge, and associative needs.

A training model requires as much attention to process (how one learns) as to content (what one learns). Consequently, the guide is specific about the "how-to's" of implementing a competency-based vocational training program based on employer and student needs. The format, however, is intended to allow considerable flexibility in adapting the content of the guide to the needs and priorities of a variety of educational programs and settings.

A functional health occupations training program begins with a course of instruction. Organized within the course are concepts and skills requisite to a defined body of knowledge inherent to health care delivery. These concepts and skills are expressed in terms of learning objectives. Instruction and activities directly related to a specific objective are organized into a specially-designed unit called a Learning Activity Package, or LAP. The principal components of this competency-based training approach are delineated below.

- *DERIVATION OF CURRICULUM REQUIREMENTS.* The curriculum is described in terms of units (LAPs) which are organized into an instructional sequence building systematically on prerequisite knowledge of both a general and a specific nature.

- *DESCRIPTION OF PREREQUISITE LEARNING REQUIREMENTS.* The curriculum specifies the prerequisite learning essential to successful mastery of the course content. The determination of those skills and concepts which are prerequisite to subsequent instruction establishes the sequence of the instructional program. A very useful resource for this process is the *Dictionary of Occupational Titles, Volume II: Occupational Classification.* This volume defines occupational traits which are generic in nature and are broadly applicable across jobs within a specific occupational area. Listed are qualifications profiles, related job classifications, tasks performed in the various worker trait categories, and worker requirements. For help in using this information to greatest advantage, see the *Teaching Guide for Social Service Occupations* developed by the Illinois Office of Education, Department of Adult, Vocational and Technical Education.

- *ESTABLISHMENT OF APPROPRIATE INSTRUCTIONAL SEQUENCE.* The concepts, skills, and knowledge included within the curriculum must be defined and ordered in a manner best suited to specific student needs (see Section 1.0). This component of competency-based curriculum development is a large task—one which the instructor may wish to share with other teachers, employers, and/or an ad hoc advisory board. A resource tool directly applicable to the sequencing process is *A Guide for Teachers and Administrators: Health Occupations at the Secondary Level,* available from the Illinois Office of Education, Department of Adult, Vocational and Technical Education.

- *UTILIZATION OF INDIVIDUALIZED INSTRUCTION.* As far as possible, the course of study should utilize the concepts of individualized teaching/learning. In individualized learning, a student's achievement constitutes the standard by which his/her progress is judged and provides, at the same time, a primary source of motivation. Prior to instruction, the student receives a set of objectives which describe exactly what he/she will be expected to know or do after completing each assignment.

- *DEVELOPMENT OF STUDENT EVALUATION METHODS.* Appropriately derived objectives lead directly to measures of student performance. Performance measures are criterion-referenced; that is, they are directly related to performance objectives. Emphasis is placed on the attainment or mastery of the objectives. All units of instruction (LAPs) include performance measures which are available to the student, the instructor, and guidance counselors.

- *ESTABLISHMENT OF PROGRAM EVALUATION PROCEDURES.* A comprehensive course evaluation should include objective measures of immediate outcomes, as well as procedures for curriculum revision based on evaluation results. Feedback on individual and collective student performance is processed by the instructor in making decisions to expand, eliminate, or revise specific areas of instruction.

In summary, a successful health occupations training program will provide individualized education for each student, economically practical within the available resources, locally planned and directed, relevant to employer and student needs, and responsive to all parties-at-interest in health care education.

PART ONE

Resource Guide

SECTION 1.1

PURPOSE AND USE OF PART ONE OF THE GUIDE

An effective health occupations training program places heavy emphasis on competency-based learning, developed from a detailed task analysis and therefore reflective of actual occupational requirements. The task analysis process provides direction for the specification of prerequisite skills and knowledge and for the sequencing of instruction.

Part One of the curriculum guide constitutes a set of resource materials that focus on describing the framework of the health care field and on providing information generated by or appropriate to task analyses for related occupations. Many of these materials are based on information presented in *Orientation to Health Occupations*, an instructional reference tool developed by the Illinois Office of Education, Department of Adult, Vocational and Technical Education, and available at cost from the Curriculum Publications Clearinghouse at Western Illinois University.

Because users of the guide may have differing needs corresponding to the current level of development of their programs, the materials included in Part One are organized and presented in a variety of ways. The overall purpose is to assist the user in conceptualizing the scope of a given course of instruction and to identify appropriate skills and knowledge which students should acquire through such instruction.

SECTION 1.2 diagrams the structure of the health care field in terms of work functions.

SECTION 1.3 provides a categorization of jobs within the health care field according to level (entry, intermediate, advanced) and a general description of the duties inherent in each occupation.

SECTION 1.4 includes a Basic Task Inventory for all health occupations—a listing of key worker requirements that may be used as an efficient *means* of performing task analyses.

SECTION 1.5 provides *examples* of job-specific task inventories for 19 individual health care occupations.

SECTION 1.6 describes a step-by-step process for planning a course of instruction using the Basic Task Inventory.

SECTION 1.2

CLASSIFICATION OF WORK FUNCTIONS

The charts on the following pages, developed by the U.S. Office of Education, depict ten major categories into which the work functions of the health care field may be divided. While this organizational scheme is not the only way in which to structure a course, it is a way often chosen by high school educators when articulation with future training is desirable. In such situations the high school is responsible for providing students with a foundation of skills and knowledge upon which job-specific training at the post-secondary level may be based.

In the absence of expectations for additional vocational training, the use of job-specific task analyses reflecting the needs of employers and entry-level workers is much preferred. The latter approach effectively separates "nice-to-know" skills and concepts from those which are essential to job entry immediately upon graduation. For examples of job-specific task analyses, see Sections 1.3 and 1.5.

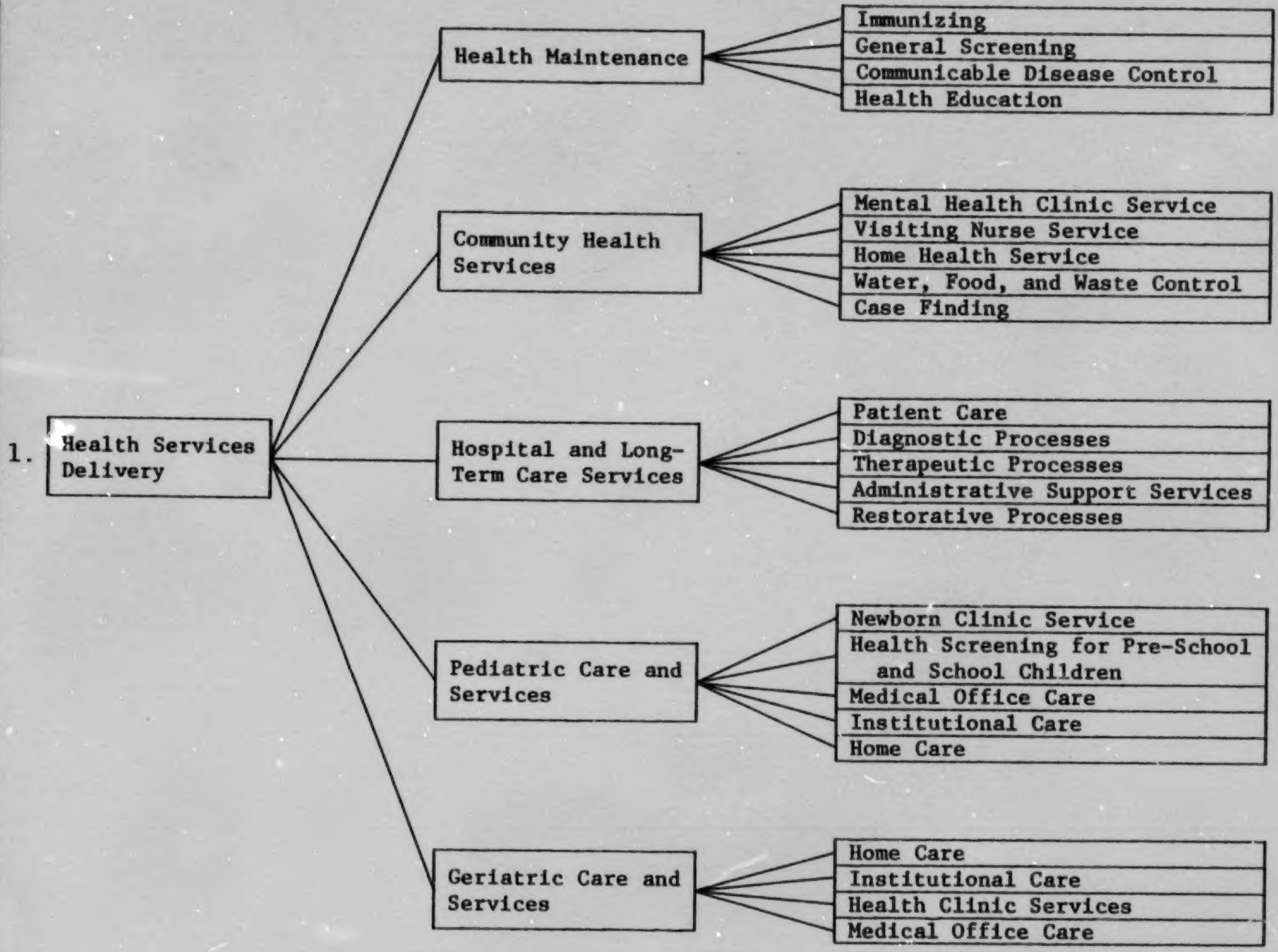
The charts in this section may be used by health care educators in one or more of the following ways:

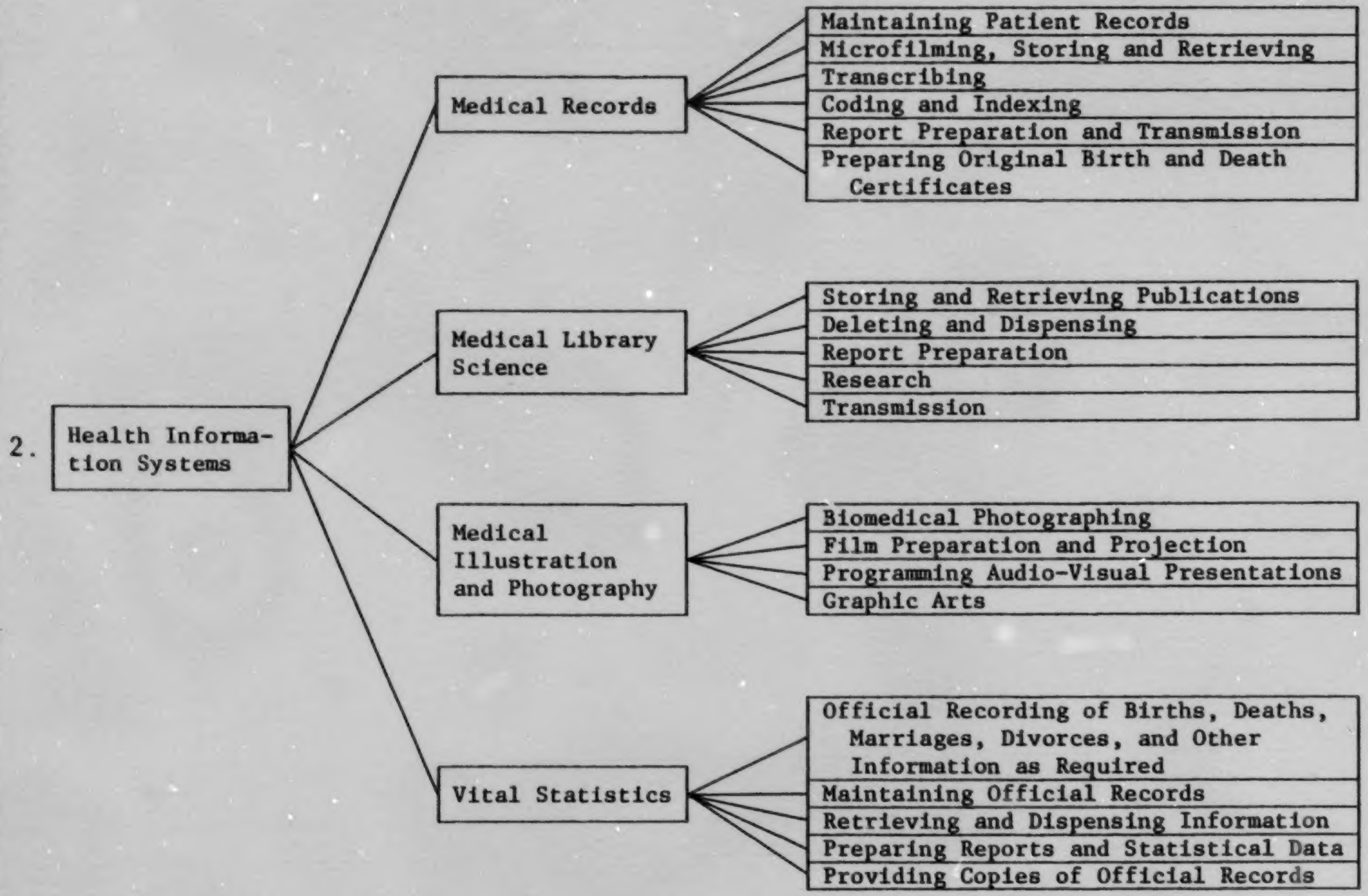
- as an overview illustrating the relationships that exist within the field, for the purpose of establishing "core" learning requirements in a particular course of study.

- as a control for the task analysis procedure (the classifications of job functions listed at the right of the charts represent one way of grouping related tasks for purposes of developing course objectives).

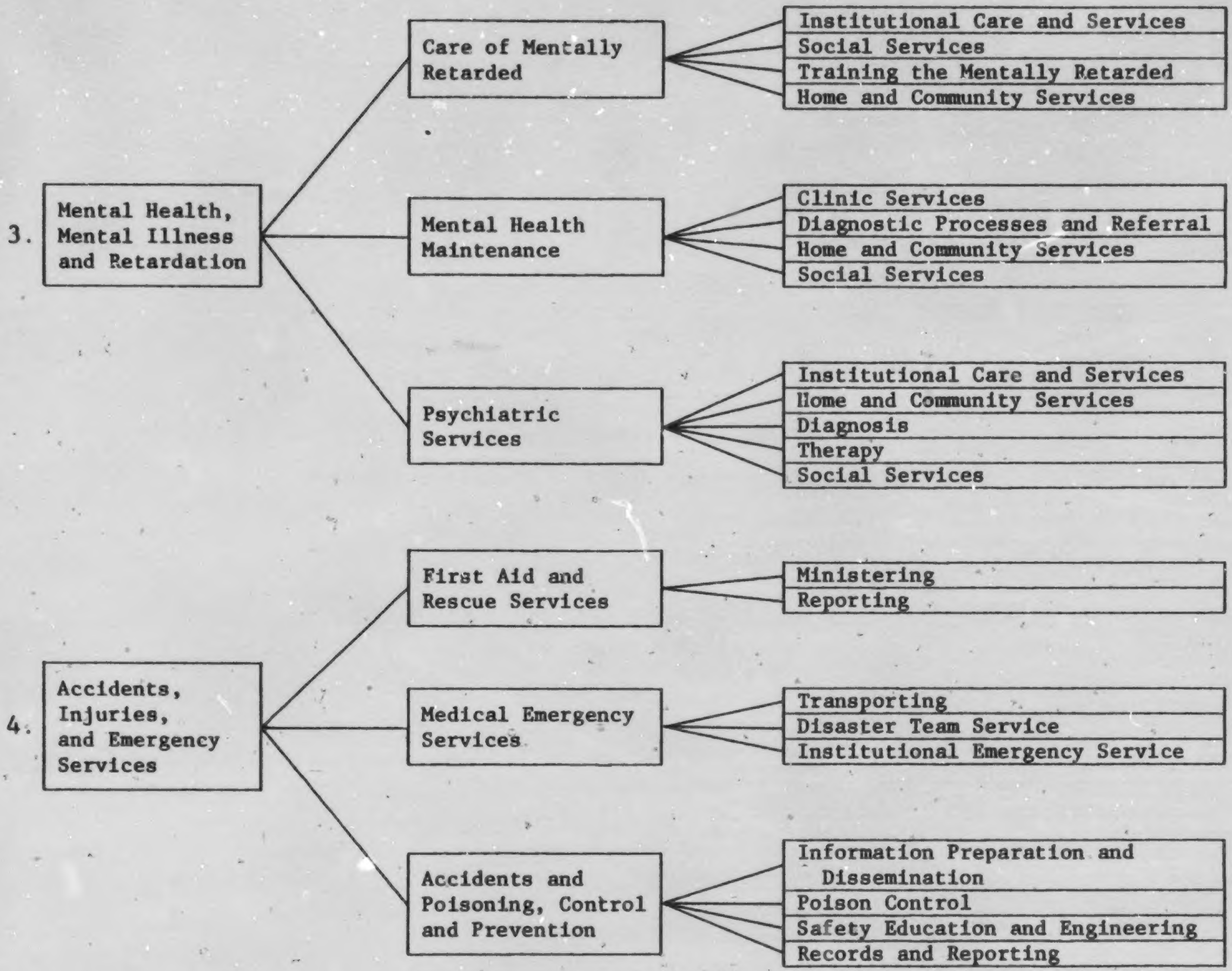
- as a tool for the evaluation of existing health occupations training programs.

If, for example, the charts were used to identify "core" learning requirements for a course of instruction, those skills and concepts having the broadest applicability within the total structure would be selected for inclusion in the curriculum. By studying the charts provided here and related materials, the instructor may begin to map the interrelationships of knowledge and interdependent functions within the field. The resulting format may be validated through consultation with a health care advisory board or other sources.

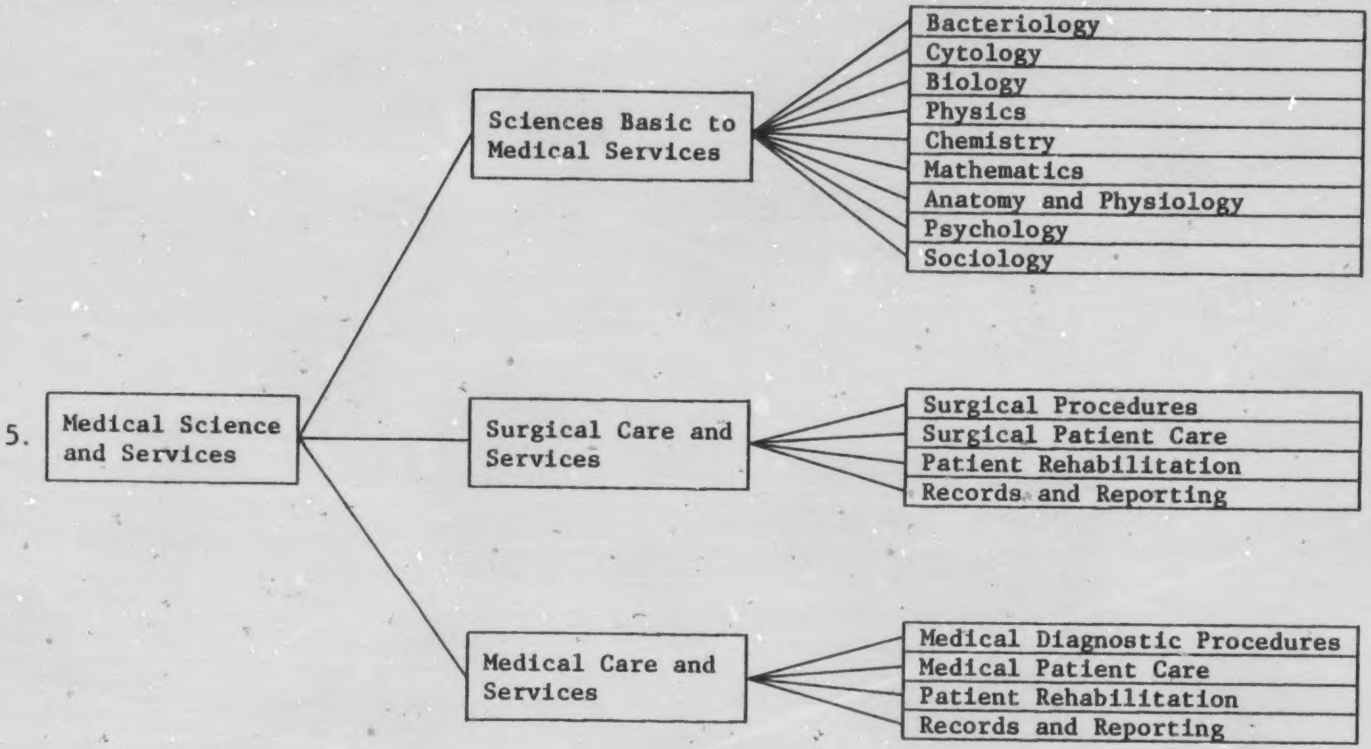

1.
Health Services Delivery
Health Maintenance
Immunizing
General Screening
Communicable Disease Control
Health Education
Community Health Services
Mental Health Clinic Service
Visiting Nurse Service
Home Health Service
Water, Food, and Waste Control
Case Finding
Hospital and Long-Term Care Services
Patient Care
Diagnostic Processes
Therapeutic Processes
Administrative Support Services
Restorative Processes
Pediatric Care and Services
Newborn Clinic Service
Health Screening for Pre-School and School Children
Medical Office Care
Institutional Care
Home Care
Geriatric Care and Services
Home Care
Institutional Care
Health Clinic Services
Medical Office Care



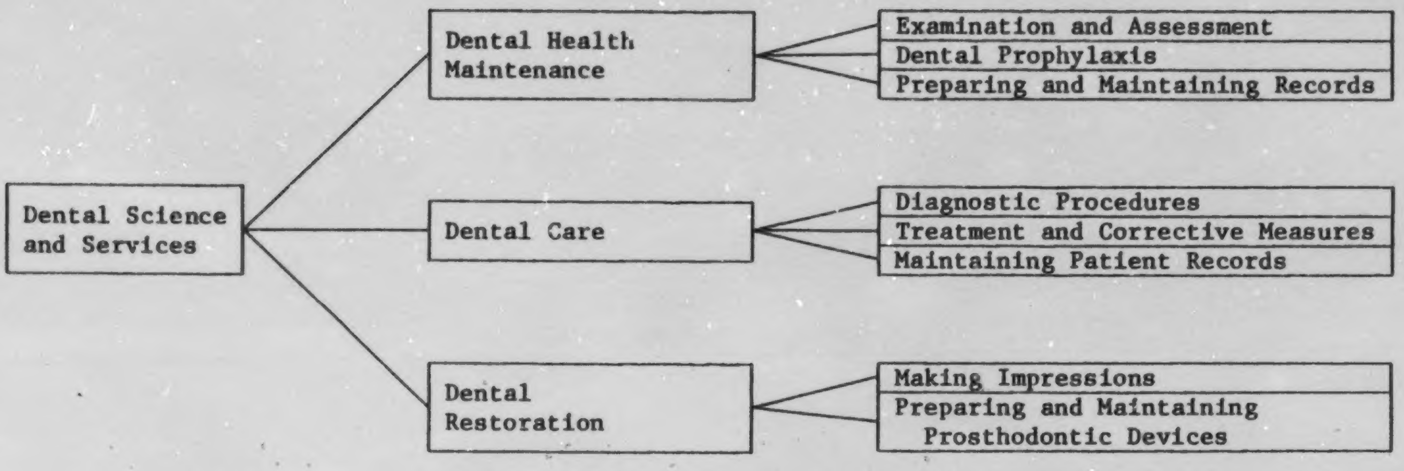
- 2. Health Information Systems
  - Medical Records
    - Maintaining Patient Records
    - Microfilming, Storing and Retrieving
    - Transcribing
    - Coding and Indexing
    - Report Preparation and Transmission
    - Preparing Original Birth and Death Certificates
  - Medical Library Science
    - Storing and Retrieving Publications
    - Deleting and Dispensing
    - Report Preparation
    - Research
    - Transmission
  - Medical Illustration and Photography
    - Biomedical Photographing
    - Film Preparation and Projection
    - Programming Audio-Visual Presentations
    - Graphic Arts
  - Vital Statistics
    - Official Recording of Births, Deaths, Marriages, Divorces, and Other Information as Required
    - Maintaining Official Records
    - Retrieving and Dispensing Information
    - Preparing Reports and Statistical Data
    - Providing Copies of Official Records



- 3. Mental Health, Mental Illness and Retardation
  - Care of Mentally Retarded
    - Institutional Care and Services
    - Social Services
    - Training the Mentally Retarded
    - Home and Community Services
  - Mental Health Maintenance
    - Clinic Services
    - Diagnostic Processes and Referral
    - Home and Community Services
    - Social Services
  - Psychiatric Services
    - Institutional Care and Services
    - Home and Community Services
    - Diagnosis
    - Therapy
    - Social Services
- 4. Accidents, Injuries, and Emergency Services
  - First Aid and Rescue Services
    - Ministering
    - Reporting
  - Medical Emergency Services
    - Transporting
    - Disaster Team Service
    - Institutional Emergency Service
  - Accidents and Poisoning, Control and Prevention
    - Information Preparation and Dissemination
    - Poison Control
    - Safety Education and Engineering
    - Records and Reporting

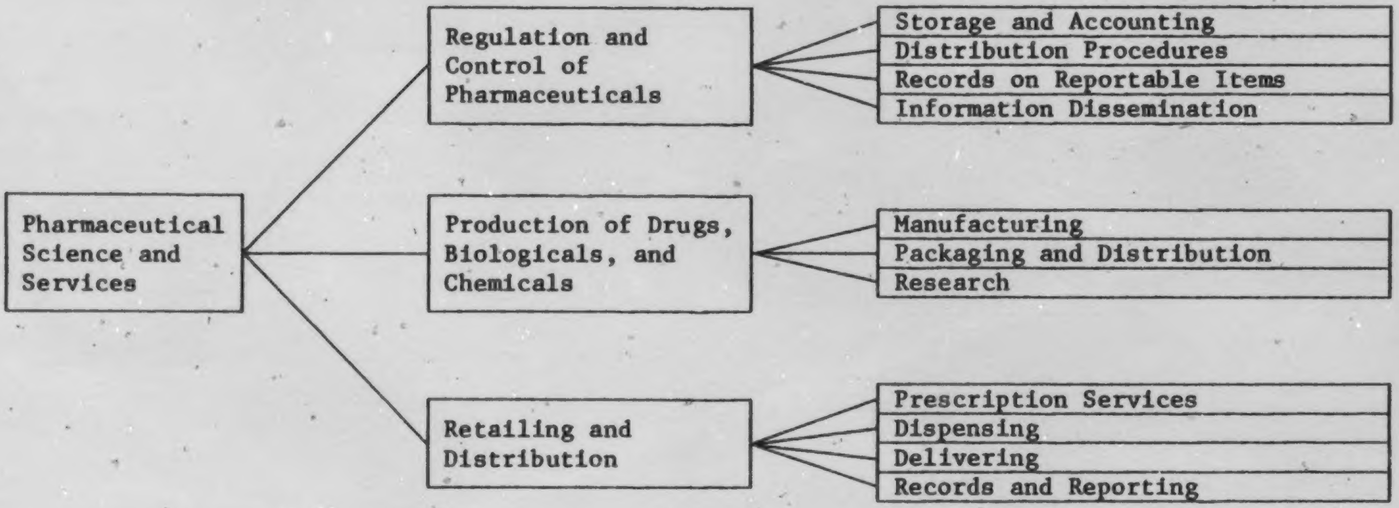

5.
Medical Science and Services
Sciences Basic to Medical Services
Bacteriology
Cytology
Biology
Physics
Chemistry
Mathematics
Anatomy and Physiology
Psychology
Sociology
Surgical Care and Services
Surgical Procedures
Surgical Patient Care
Patient Rehabilitation
Records and Reporting
Medical Care and Services
Medical Diagnostic Procedures
Medical Patient Care
Patient Rehabilitation
Records and Reporting

6.



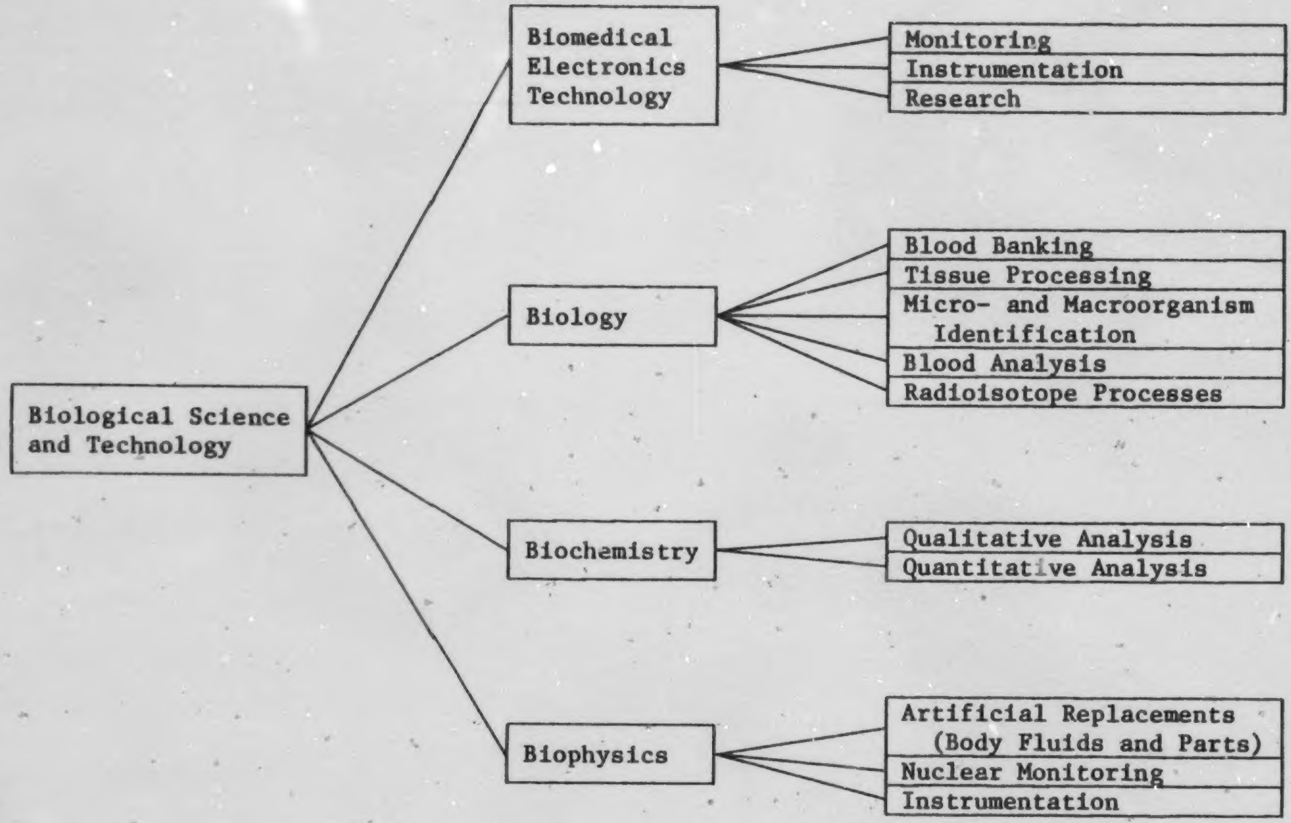
- Dental Science and Services
  - Dental Health Maintenance
    - Examination and Assessment
    - Dental Prophylaxis
    - Preparing and Maintaining Records
  - Dental Care
    - Diagnostic Procedures
    - Treatment and Corrective Measures
    - Maintaining Patient Records
  - Dental Restoration
    - Making Impressions
    - Preparing and Maintaining Prosthodontic Devices

7.

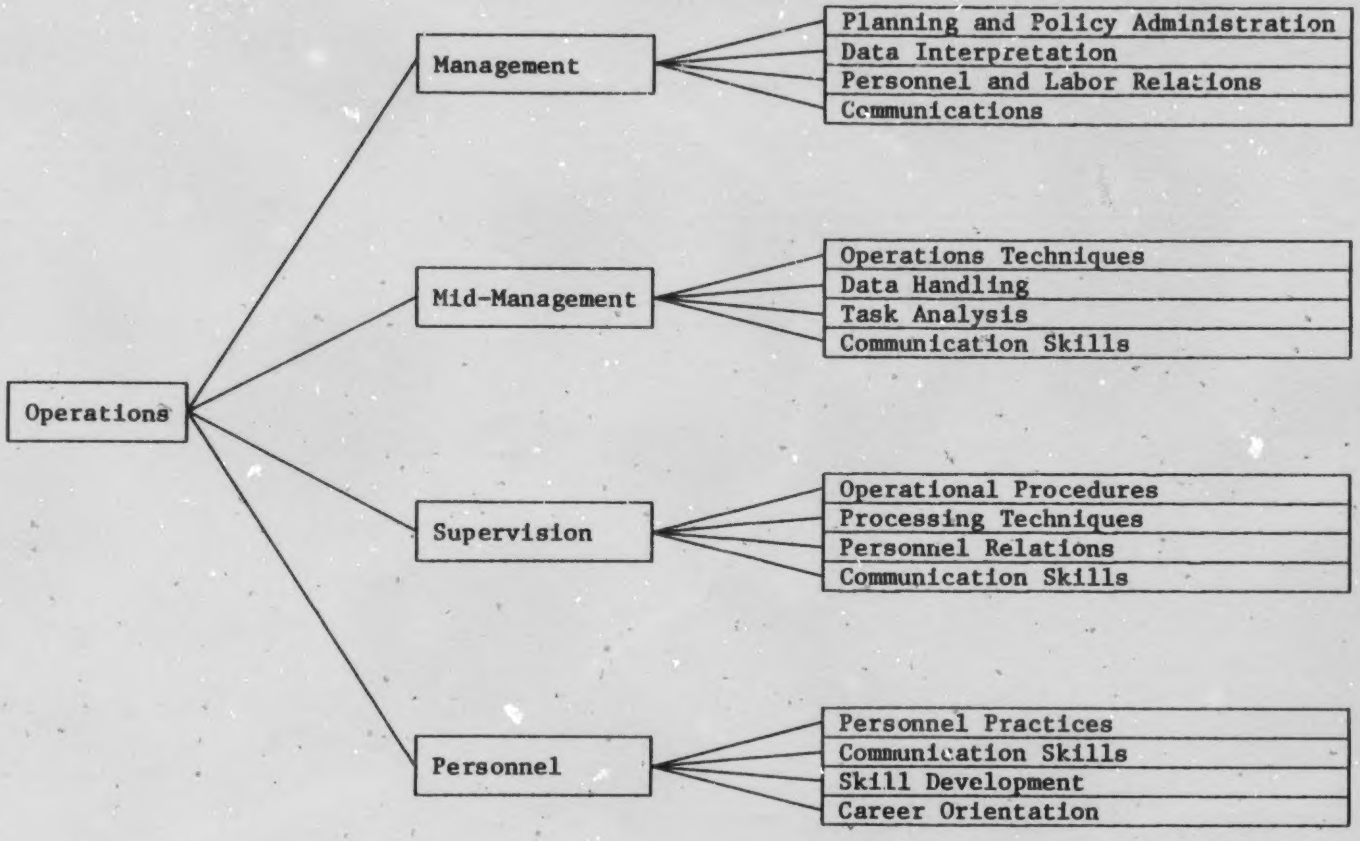


- Pharmaceutical Science and Services
  - Regulation and Control of Pharmaceuticals
    - Storage and Accounting
    - Distribution Procedures
    - Records on Reportable Items
    - Information Dissemination
  - Production of Drugs, Biologicals, and Chemicals
    - Manufacturing
    - Packaging and Distribution
    - Research
  - Retailing and Distribution
    - Prescription Services
    - Dispensing
    - Delivering
    - Records and Reporting

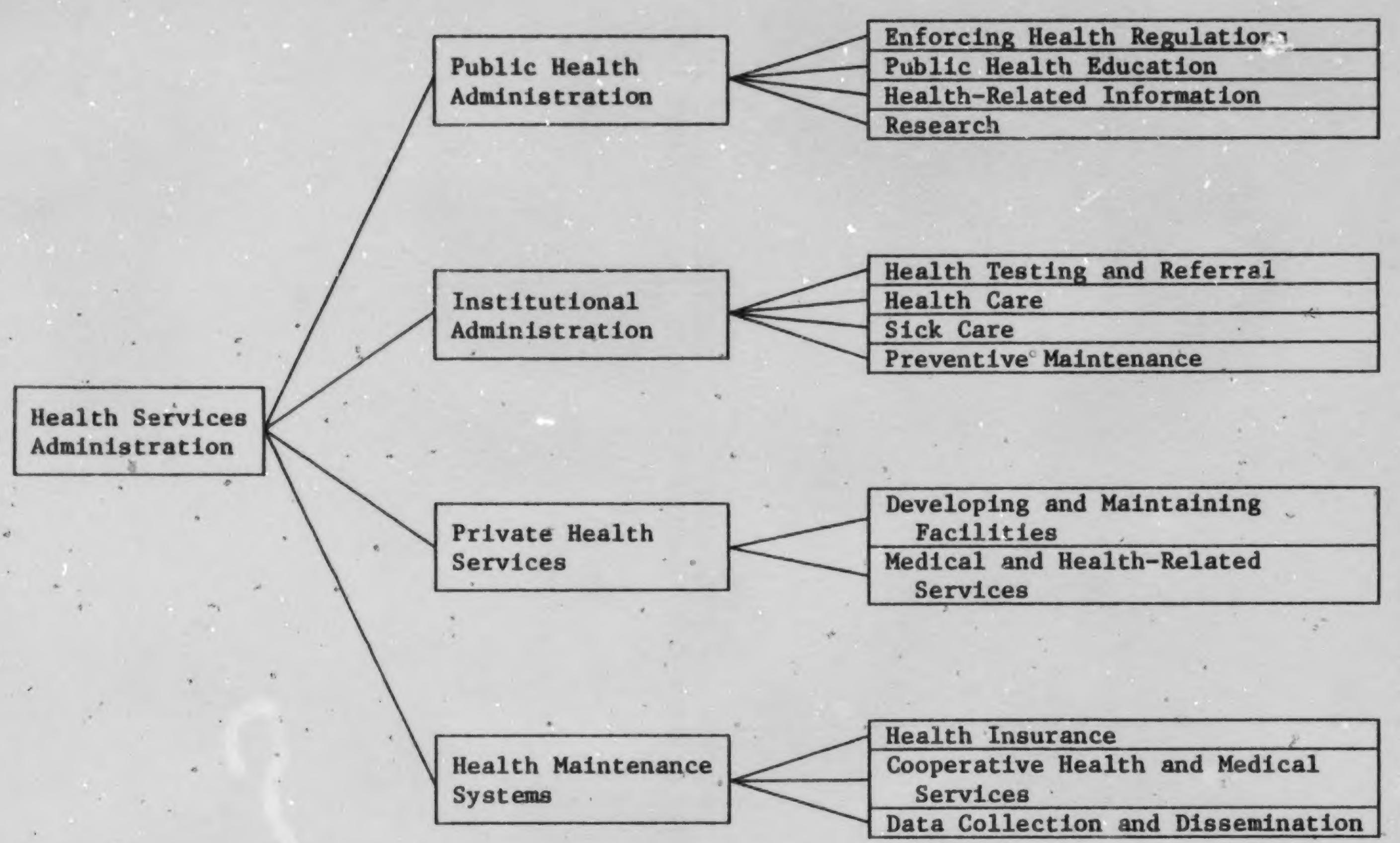
8.


Biological Science and Technology
Biomedical Electronics Technology
Monitoring
Instrumentation
Research
Biology
Blood Banking
Tissue Processing
Micro- and Macroorganism Identification
Blood Analysis
Radioisotope Processes
Biochemistry
Qualitative Analysis
Quantitative Analysis
Biophysics
Artificial Replacements (Body Fluids and Parts)
Nuclear Monitoring
Instrumentation

9.


Operations
Management
Planning and Policy Administration
Data Interpretation
Personnel and Labor Relations
Communications
Mid-Management
Operations Techniques
Data Handling
Task Analysis
Communication Skills
Supervision
Operational Procedures
Processing Techniques
Personnel Relations
Communication Skills
Personnel
Personnel Practices
Communication Skills
Skill Development
Career Orientation

10.


Health Services Administration
Public Health Administration
Enforcing Health Regulations
Public Health Education
Health-Related Information
Research
Institutional Administration
Health Testing and Referral
Health Care
Sick Care
Preventive Maintenance
Private Health Services
Developing and Maintaining Facilities
Medical and Health-Related Services
Health Maintenance Systems
Health Insurance
Cooperative Health and Medical Services
Data Collection and Dissemination

SECTION 1.3

GENERAL DESCRIPTION OF DUTIES FOR ENTRY, INTERMEDIATE, AND ADVANCED-LEVEL OCCUPATIONS

Included in this section are lists of seven entry-level occupations, eleven intermediate-level occupations, and three advanced-level occupations in the health care field. Each occupational title is accompanied by a general description of related duties.

The purpose of this section is to enable users of the guide to analyze the commonalities and differences in duties among occupations at each level. Further, this section may facilitate a focus on the types of occupations relevant to a particular training program, given program goals and student needs.

More extensive material on allied health careers, including information regarding job openings and salary range, is provided in the *Health Careers Planning Guide for Illinois*. If this publication is not already available in your school district, it may be purchased from the Curriculum Publications Clearinghouse, 47 Horrabin Hall, Western Illinois University, Macomb, Illinois 61455 (telephone: 800-322-3905).

ENTRY-LEVEL HEALTH CARE OCCUPATIONS

HEALTH AIDE: Health aides provide technical support and assistance to professional medical and health personnel. Positions range widely in type and include support duties for personnel such as audiologists, speech pathologists, medical officers, or optometrists. The duties of the health aide vary with the specific type of assignment and the responsibility of the position.

MEDICAL AIDE: Medical aides perform nonprofessional duties related to the processing and issuing of sterile supplies used by physicians, nurses, and others in the examination and treatment of patients in hospitals, clinics, and other health care facilities. Medical aides disassemble, clean, and assemble instruments and equipment; operate autoclaves and other types of sterilizing equipment; assemble a variety of examination and treatment trays; deliver sterile medical supplies to ward and clinic units; and fill orders for supplies. They also keep simple records of supplies processed and issued.

PHARMACY AIDE: Under the supervision of a registered pharmacist, pharmacy aides perform a variety of technical support functions. They receive, care for, store, and distribute bulk pharmaceutical compounds, prepare sterile solutions, and set up prescriptions for a final check by the pharmacist.

MEDICAL LABORATORY AIDE: Medical laboratory aides provide technical support and assistance to professional personnel (clinical pathologists, medical technologists, chemists, microbiologists, and others) in one or a combination of the fields of clinical laboratory work. They perform such duties as preparing culture media, stains, and test solutions; cleaning and sterilizing glassware; making selected tests and examinations in such areas of work as chemistry, microbiology, hematology, and blood banking; and preparing reports on the findings of tests and examinations.

MEDICAL TRANSCRIPTIONIST: Medical transcriptionists type written and recorded medical records. They work with medical records administrators and medical records technicians in the preparation and maintenance of accurate patient records. Transcriptionists must type medical dictation, understand medical terms, and know how to interpret medical reports.

PSYCHIATRIC AIDE: Psychiatric aides work closely with mentally and/or emotionally disturbed or retarded patients. In addition to providing physical are, they assist in appropriate rehabilitation programs.

DENTAL OFFICE MANAGER: Dental office managers represent a patient's first contact with the dental office. Their duties include answering the telephone, scheduling appointments, and other office functions. Dental office managers are trained in routine bookkeeping procedures and in some cases have experience as dental assistants. They also maintain medical record filing systems, type correspondence, and handle insurance forms.

INTERMEDIATE-LEVEL HEALTH CARE OCCUPATIONS

HISTOLOGIST TECHNICIAN: Histologist technicians are responsible for preparing, cutting, and staining tissues which have been removed from the human body. They aid pathologists in detecting disease.

MEDICAL TECHNICIAN: Medical technicians provide technical support and assistance to professional personnel (clinical pathologists, medical technologists, medical research workers, chemists, microbiologists, and others) in one or a combination of the fields of clinical laboratory and research work. They perform such duties as preparing culture media, stains, and test solutions; cleaning and sterilizing glassware; making selected tests and examinations in such areas as chemistry, microbiology, hematology, and blood banking; and preparing reports on the findings of tests and examinations.

MEDICAL MACHINE TECHNICIAN: Medical machine technicians provide technical support and assistance to physicians and other professional medical personnel by operating one or more types of medical machines for diagnostic or therapeutic purposes. They prepare patients for diagnostic examinations or treatment, calibrate or standardize equipment as required, operate equipment, assemble records for interpretation by the physician, and take responsibility for recognizing and notifying the physician of a patient's lack of response or adverse reaction to treatment or examination procedures.

NUCLEAR MEDICINE TECHNICIAN: Nuclear medicine technicians use radionuclides for diagnostic, therapeutic, or investigative purposes. Their duties include performing tests and examinations using radionuclides, radiation detectors, scanning apparatus, and related equipment in medical laboratories or clinics. Such positions require a technical knowledge of the principles and practices of nuclear medicine.

PHARMACY TECHNICIAN: Pharmacy technicians perform a variety of technical support functions in a pharmacy. Their duties include receiving, caring for, storing, and distributing bulk pharmaceutical compounds, as well as setting up prescriptions for final check by the pharmacist.

MEDICAL RECORDS TECHNICIAN: Medical records technicians analyze medical records for completeness, consistency, and compliance with requirements; code medical record information; and retrieve and compile medical record data. Their work requires a practical knowledge of medical terminology, anatomy, physiology, the internal organization of medical records, medical record references and procedures, and the medical and legal significance of medical records.

MEDICAL RADIOLOGY TECHNICIAN: Medical radiology technicians operate diagnostic and therapeutic radiographic equipment.

DENTAL ASSISTANT: Dental assistants receive and prepare patients for dental treatment; assist the dentist at the chair or bedside in restorative (nonsurgical) dentistry and/or oral surgical operations; prepare materials and equipment for use by the dentist; sterilize materials and instruments; and lay out instruments. They may also perform dental X-ray work or assist the dentist in prosthetic work. Dental assistants keep records of appointments, examinations, treatments, and supplies.

NURSING ASSISTANT: Nursing assistants provide basic personal and nursing care to patients under the supervision and direction of physicians or professional nurses.

LICENSED PRACTICAL NURSE: Licensed practical nurses provide nursing care to patients under the supervision and direction of professional nurses, and are considered next in skill level to the professional nurse. Commensurate with their education and/or competencies, they perform such functions as administering medications and therapeutic treatments; preparing and caring for patients receiving diagnostic tests and special treatments; observing, reporting, and recording general and specific physical and behavioral signs and symptoms indicative of changes in a patient's condition; recognizing the implications of these changes; and taking corrective action or reporting changes to the professional nurse.

DENTAL LABORATORY TECHNICIAN: Dental laboratory technicians perform laboratory support and technical work in the construction and repair of dental prosthetic appliances on the prescription of a dentist. Dental laboratory technicians make dentures, fabricate metal or porcelain crowns and inlays to restore teeth, construct metal and porcelain bridges to replace missing teeth, and make orthodontic appliances. Their work requires a knowledge of oral anatomy, tooth morphology, dentition, and laboratory materials and equipment.

ADVANCED-LEVEL HEALTH CARE OCCUPATIONS

DENTAL HYGIENIST: Dental hygienists provide preventive services by administering complete oral prophylaxes to patients; therapeutic services by applying topical fluorides and other medications as directed by the dentist; and dental health education services by instructing individual patients or patient groups, nurses and nursing assistants, or other hospital or clinic personnel in techniques and practices for the maintenance of oral hygiene.

MEDICAL TECHNOLOGIST: Medical technologists perform tests on samples of fluids and other bodily substances of patients, and prepare reports on their findings for use by physicians in the diagnosis, care, and treatment of these patients. Medical technologists may conduct special studies to evaluate and standardize new or improved methods, procedures, or equipment for use in the clinical laboratory. Their work may be of a general nature or may be specialized in one of the fields of medical technology, such as chemistry, microbiology, hematology, or blood banking. Most medical technologist positions involve duties in teaching and/or training medical technicians, other medical technologists, or other medical personnel.

REGISTERED NURSE: Registered nurses administer medicine and drugs, observe patient symptoms, take and record vital signs, change dressings on wounds, prepare and sterilize instruments, give injections, keep patient records, assist in the education of the patient, coordinate patient care, and provide an environment which promotes an optimum level of health.

SECTION 1.4

BASIC TASK INVENTORY FOR HEALTH OCCUPATIONS

Description of the Basic Task Inventory

This section contains information generated by task analyses of a wide range of health occupations. Data were obtained from job analysis studies, published occupational health care literature, professional associations, government agencies, and private organizations.

The inventory lists significant tasks and worker requirements most common within the health care field. Specifically, the inventory includes the following components:

- *INVENTORY OF TASKS:* a listing of task statements not limited to a single level of performance and ranging from clerical/administrative to management/supervisory tasks. Each task statement is broad in scope and subsumes related subtasks.
- *INVENTORY OF EDUCATIONAL REQUIREMENTS:* a listing of academic courses relevant to health care occupations.
- *INVENTORY OF ROLE INTERACTIONS:* a listing of occupational roles representing potential key personnel with whom a worker in a given health occupation might be required to interact.
- *INVENTORY OF MACHINES AND EQUIPMENT:* a listing of common machines and equipment necessary to the performance of health occupations responsibilities.
- *INVENTORY OF WORK AIDS:* a listing of common work aids used in connection with health occupations.

Purpose of the Basic Task Inventory

The primary purpose of the Basic Task Inventory is to permit users of the guide to generate basic task-analytic descriptions of selected occupations in an efficient manner. After considering all of the entries listed under each component of the inventory, one can determine those items that are applicable to a specific occupation. The combination of these relevant items in the outline format shown in Sections 1.5 or in the narrative format utilized in Section 1.3 constitutes the process of job analysis for a given occupation.

For these descriptions to reflect *complete* information about a job or to serve as the basis for a *generalized* health training program, the user should review the lists for comprehensiveness. Additional tasks or items should be entered where necessary; a review of the job-specific entries in Section 1.5 may assist in this process. The user is reminded that entries in the Basic Task Inventory are not to be considered inflexible and may be modified or refined as necessary.

Uses of the Basic Task Inventory

The inventory may be adapted to meet various needs. Information generated by a review of all components of the inventory can be used to determine abilities and knowledge required for a health care occupation which must be considered in the development of curricula for vocational training.

For example, the user may become familiar with the list in advance of a curriculum study and may then use the items as a guide in interviewing health care workers or others from whom job information is to be gathered. Another approach might be to give the inventory to workers and ask them to check those items appropriate to the work they perform.

INVENTORY OF TASKS

1. Renders first aid to ill or injured persons.

2. Uses therapeutic equipment.

3. Distributes medications.

4. Uses reports and findings of tests and examinations.

5. Uses information resulting from diagnosis of patient.

6. Uses instruments such as sphygmomanometer.

7. Inoculates and vaccinates patients.

8. Uses hypodermic and syringe.

9. Participates in physical examinations.

10. Participates in operations.

11. Makes house calls and emergency calls.

12. Takes blood samples for laboratory tests.

13. Participates in medical research.

14. Answers patients' calls and provides bedside services.

15. Dresses cuts and incisions and changes dressings.

16. Bathes patients.

17. Observes patients for symptoms, reactions, and progress.

18. Escorts and transports patients requiring medical services to other departments.

19. Administers electrocardiograph tests.

20. Administers electroencephalograph tests.

21. Prepares prescribed medications.

22. Assists physician during treatment of patients.

23. Sterilizes instruments and other medical devices.

24. Arranges operating instruments and supplies according to standard procedures.

25. Changes drainage tubes.

26. Provides care and remedial services for patients according to medical specialty.

27. Places patient in examining room.

28. Obtains patient's medical history for medical records.

29. Participates in activities in the medical laboratory.

30. Measures patient's extremities and joints for range of motion.

31. Provides specific services for patients related to nursing services.

32. Participates in nutritional programs.

33. Performs medical laboratory tests such as growing cultures, blood typing, and biopsies.

34. Carries food trays to patients.

35. Records medical services provided to patient on individual chart.

36. Participates in treatment of disorders of the mind.

37. Participates in treatment of diseases of animals.

38. Uses principles and applications of nursing services.

39. Participates in medically-oriented therapy programs.

40. Assists in providing therapeutic therapy to patients.

41. Compiles and maintains medical records.

42. Reviews medical records and contacts appropriate personnel to obtain missing data.

43. Requisitions medical supplies required for department operations.

44. Informs administrative personnel of nursing or health service problems related to group or individual feeding.

45. Participates in food service programs and instructs others regarding principles of nutrition.

46. Renders medical services and patient care under direction of nursing personnel.

47. Performs personal and housekeeping services for bed patients.

48. Performs variety of duties in assisting operating room personnel.

49. Compounds and dispenses prescribed medications.

50. Participates in medical research programs.

51. Participates in educational programs in dietetics, nutrition, and institutional maintenance.

52. Takes and develops X-rays for diagnostic purposes.

53. Sets up and operates medical breathing and inhalation equipment.

54. Adjusts spinal column and other articulations of the body.

55. Treats patients, basing treatment on natural laws governing the body.

56. Other (specify)

INVENTORY OF EDUCATIONAL REQUIREMENTS

Anatomy
Biophysics/Nuclear Medicine
Biostatistics
Clinical Laboratory Technology
Clinical Science
Communication Disorders
Comparative Pathology
Comparative Pharmacology/Toxicology
Dental Hygiene
Dietetics
Epidemiology
Infectious Diseases
Medical Clinic Technology
Medical Microbiology/Immunology
Medical Physics
Medical Technology
Medicine
Nursing
Nursing Education
Nutrition
Nutritional Science
Occupational Therapy
Optometry
Pathology
Pharmaceutical Chemistry
Pharmacology
Pharmacy
Physical Therapy
Physiological Optics
Physiology
Public Health
Public Health Microbiology
Public Health Nurse
Radiology
Sanitary Science
Speech Correction
Speech Pathology
Speech Therapy/Audiology
Vocational Nursing
Other (specify)

INVENTORY OF ROLE INTERACTIONS

Patients
Physicians
Surgeons
Interns
Nurses
Nursing Supervisors
Licensed Practical Nurses
Nursing Aides
Orderlies
Ward Clerks
Hospital Clerical Personnel
Medical Records Personnel
Medical Administrators
Dieticians
Nutritionists
Hospital Cooking Personnel
Operating Room Personnel
Laboratory Personnel
Research Personnel
Therapists
Therapy Assistants
X-Ray Technologists
Medical Technologists
Medical Specialists
Medical Technicians
Medical Instructors
Nursing Instructors
Nursing Students
Hospital Volunteer Personnel
Pharmacists
Dentists
Dental Technicians
Optometrists
Orthopedic Technicians
Prosthetic Technicians
Veterinarians
Public Health Personnel
Other (specify)

INVENTORY OF MACHINES AND EQUIPMENT

Anesthesia Apparatus
Anthropometrical Apparatus
Blood Pressure Apparatus
Blood Testing Apparatus
Braille Machines
Dental Laboratory Equipment
Dental Office Equipment
Electrocardiograph Apparatus
Electroencephalograph Apparatus
Electromedical Apparatus
Electron Microscopes
Fluoroscopes
Fluoroscopic X-Ray Apparatus
Hemoglobinmeters
Hydrotherapy Equipment
Infant Incubators
Inhalators
Iron Lungs
Laboratory Autoclaves
Laboratory Furnaces
Medical Tonometers
Operating Room Equipment
Opthalmic Muscle Exercise Equipment
Pathological Laboratory Apparatus
Photomicrographic Apparatus
Physical Therapy Equipment
Physician's Diagnostic Apparatus
Radiographc X-Ray Apparatus
Respirators
Sterilizers
Therapeutic X-Ray Apparatus
Ultrasonic Medical Equipment
Whirlpool Bath Equipment
X-Ray Machines
Other (specify)

INVENTORY OF WORK AIDS

Adhesive Tape
Admittance Lists
Antiseptics
Astringents
Atomizers
Audiometers
Auriscopes
Autoanalyzers
Bandages
Cardiographs
Catheters
Charts
Colorimeters
Coulter Counters
Course Outlines
Cystoscopes
Denture Materials
Diet Books
Flame Photometers
Gastroscopes
Gauze
Hypodermics
Insurance Forms
Masks
Medical Instruments
Medical Textbooks/Manuals
Medicines
Menus
Microscopes
Microtomes
Needles
Optical Comparators
Optical Instruments
Optometers
Orthodontic Appliances
Orthopedic Appliances
Otoscopes
Oxygen Tanks
Oxygen Tents
Pelvimeters
Pho Gamma Scanners
Plasmas
Prosthetic Appliances
Recipes
Resuscitators
Serums
Sphygmomanometers
Stethoscopes
Stretchers
Surgical Instruments
Sutures
Thermometers
Tongue Depressors
Toxoids
Transducers
Treatment Books
Vaccines
Veterinary Instruments
Wheelchairs
Other (specify)

SECTION 1.5

EXAMPLES OF TASK ANALYSES

The following 18 job-specific task inventories represent jobs found in the ten major health occupations categories. While not comprehensive in scope, these task lists provide the instructor with a cross-section of health care positions having the highest employment potential. A review of the inventories will indicate that a large number of tasks are common to different jobs within and across categories.

The task analyses presented here can serve as a core of general occupational training requirements and may be supplemented with specific tasks related to local employment demands and job training needs.

COMMUNITY HEALTH AIDE:

1. Takes oral temperature.
2. Takes rectal temperature.
3. Takes auxiliary temperature.
4. Takes pulse and respiratory rate.
5. Takes blood pressure.
6. Measures infants' weight.
7. Tests urine for sugar and/or acetone.
8. Assists patients in walking with crutches.
9. Fills out basic information forms.
10. Makes health-related surveys.
11. Collects vital statistics information.
12. Makes appointments and referrals.
13. Teaches basic principles of personal and dental hygiene.

14. Teaches principles of nutrition.
15. Teaches proper sanitation and food storage procedures.
16. Teaches basic prenatal care, post-partum care, and infant care.
17. Assists in teaching methods of contraception.

DENTAL AIDE:

1. Replaces linen.
2. Takes inventories.
3. Requisitions supplies.
4. Washes glassware.
5. Cleans instruments.
6. Wraps supplies for sterilization.
7. Sterilizes supplies.
8. Types correspondence and forms.
9. Files patient records.
10. Pulls patient records from the files.
11. Bills patients.
12. Receives telephone calls.
13. Makes telephone calls as requested.
14. Makes appointments and referrals.
15. Reminds patients of scheduled appointments.
16. Greets visitors.
17. Prepares patients for the dentist.

18. Records the dentist's observations.
19. Prepares filling materials.
20. Takes X-rays.
21. Develops X-rays.

DENTAL ASSISTANT:

1. Schedules appointments.
2. Maintains patient folders and case histories.
3. Inventories, orders, and stocks office supplies.
4. Inventories, orders, and stocks dental supplies.
5. Sterilizes and disinfects instruments and equipment.
6. Assists at chairside with operating procedures.
7. Operates X-ray equipment.
8. Processes film.
9. Mounts film.
10. Uses first aid procedures.
11. Prepares proper drug dosages.

HOME HEALTH AIDE:

1. Washes glassware.
2. Cleans thermometers.
3. Damp dusts furniture and floors.

4. Launders clothes.
5. Receives telephone calls.
6. Makes work plans.
7. Teaches principles of nutrition.
8. Teaches proper sanitation and food storage procedures.
9. Prepares simple foods.
10. Serves food trays and feeds patients.
11. Takes temperature.
12. Takes pulse and respiratory rate.
13. Takes blood pressure.
14. Records vital signs.
15. Assists with range of motion exercises.
16. Bathes infants.
17. Assists patients in walking with crutches or walker.
18. Applies ice bags and hot water bottles.
19. Measures intake and output.
20. Cleans simple wounds.
21. Moves patients in wheelchairs.
22. Assists patients in dressing.
23. Assists patients in bathing.
24. Shaves patients.
25. Gives backrubs.
26. Gives bed shampoos.

LABORATORY AIDE:

1. Replaces linen.
2. Empties wastepaper baskets.
3. Washes glassware.
4. Inventories and requisitions supplies.
5. Sorts supplies on receipt of shipment.
6. Labels requisitions with addressograph.
7. Receives telephone calls.
8. Wraps supplies for sterilization.
9. Sterilizes supplies.
10. Files laboratory reports.
11. Delivers laboratory reports to wards.
12. Collects sputum and urine specimens.
13. Prepares specimens for mailing.
14. Prepares culture media plates.
15. Checks specific gravity of urine.
16. Tests urine for sugar and/or acetone.
17. Spins down blood and urine.

MEDICAL ASSISTANT:

1. Inventories and requisitions supplies.
2. Replaces linen.
3. Cleans thermometers.
4. Washes glassware.

5. Wraps supplies for sterilization.
6. Sterilizes supplies.
7. Arranges brochures and magazines.
8. Types correspondence and reports.
9. Transcribes medical records.
10. Organizes patient charts.
11. Files patient records.
12. Pulls patient records from the files.
13. Bills patients.
14. Receives telephone calls.
15. Makes telephone calls as requested.
16. Makes appointments and/or referrals.
17. Reminds patients of scheduled appointments.
18. Greets visitors.
19. Fills out insurance forms.
20. Obtains patient histories.
21. Collects sputum and urine specimens.
22. Prepares specimens for mailing.
23. Tests urine for sugar and/or acetone.
24. Positions patients for examinations.
25. Assists patients in dressing.
26. Measures patients' height and weight.
27. Measures infants' height and weight.
28. Takes temperature.

29. Takes pulse and respiratory rate.
30. Takes blood pressure.
31. Records vital signs.
32. Assists with physical examinations.
33. Operates portable electrocardiograph.
34. Implements emergency procedures.
35. Cleans simple wounds.
36. Sets up sterile trays.
37. Applies ice bags.
38. Utilizes aseptic techniques.
39. Assists patients in walking with crutches.

MEDICAL LABORATORY ASSISTANT:

1. Operates and maintains laboratory equipment.
2. Operates and maintains microscopes.
3. Operates and maintains electrical and electronic instruments.
4. Cleans and cares for glassware.
5. Operates and maintains balance.
6. Utilizes aseptic techniques.
7. Sterilizes equipment.
8. Takes measurements and makes calculations.
9. Mixes solutions.
10. Takes histologic and cytologic specimens.

11. Implements safety measures.
12. Utilizes isolation techniques.
13. Measures basal metabolism.
14. Operates electrocardiograph.
15. Prepares and stains slides.
16. Writes laboratory reports.
17. Requisitions and stocks supplies.
18. Makes up reagents (solutions).
19. Collects blood, nose, and throat cultures.
20. Tests for occult blood.
21. Uses hemocytometer and automatic cell counter.
22. Screens blood donors.
23. Performs slide typing of blood.

MEDICAL RECORDS AIDE:

1. Receives telephone calls.
2. Processes outgoing correspondence.
3. Types correspondence and forms.
4. Replaces transcription tapes.
5. Compiles daily census sheet.
6. Checks admission cards.
7. Records admissions and discharges.
8. Places reports on patients' charts.

9. Checks charts for completeness.
10. Assists in preparing insurance claims.
11. Files patient records.
12. Pulls patient records from the files.
13. Collects vital statistics information.

MORTUARY AIDE:

1. Prepares flower arrangements.
2. Organizes seating arrangements.
3. Greets family and friends of the deceased.
4. Accommodates ceremonial variations based on custom.
5. Assists with embalming.
6. Assists in conducting funeral processions.
7. Keeps records and reports.
8. Shows caskets and vaults.
9. Requisitions supplies.
10. Cleans instruments.
11. Utilizes aseptic techniques.
12. Sterilizes materials and equipment.
13. Shampoos hair of the deceased.
14. Shaves the deceased.
15. Bathes the deceased.
16. Transports the deceased via stretcher.

NURSE ASSISTANT:

1. Cleans utensils.
2. Cleans thermometers.
3. Utilizes aseptic techniques.
4. Utilizes safety procedures.
5. Makes beds (open, closed, occupied, surgical).
6. Bathes patients (partial, complete, sitz, tub, shower).
7. Positions patients.
8. Provides morning, afternoon, and bedtime care.
9. Records intake and output.
10. Collects specimens.
11. Assists in admitting, transferring, and discharging patients.
12. Assists patients with meals.
13. Prepares hot and cold applications.
14. Checks vital signs.
15. Records and reports patient status.
16. Provides post-mortem care.
17. Applies patient restraints.
18. Applies bandages and binders.
19. Provides preoperative and postoperative care.
20. Assists patients with bowel and bladder elimination.
21. Assists patients in walking with crutches or walker.

PHARMACY AIDE:

1. Types labels.
2. Prepares and packages dosages.
3. Inventories and requisitions supplies.
4. Stores supplies and equipment.
5. Reads and interprets doctors' order sheets.
6. Pours medications.
7. Mixes solutions.
8. Utilizes aseptic techniques.
9. Returns drugs to stock.
10. Destroys damaged drugs.
11. Maintains files using Kardex and profile systems.

PHYSICAL THERAPY AIDE:

1. Receives patients.
2. Maintains patient schedule.
3. Maintains office and patient records.
4. Files office and patient records.
5. Files reports.
6. Cares for expendable supplies.
7. Cleans, disinfects, and maintains hydrotherapy units.
8. Maintains exercise equipment.
9. Transports patients in wheelchairs and on stretchers.
10. Positions patients.

11. Checks passive range of motion.
12. Removes and applies patients' supportive and assistive devices.
13. Sets up special frames and beds.
14. Observes and reports patients' comfort in traction equipment and plaster casts.
15. Assists with passive exercises.
16. Assists patients with bowel and bladder elimination.
17. Records intake and output.
18. Checks vital signs.
19. Adjusts circ-o-lectric beds and tilt tables.
20. Assists with treatment procedures (cold and hot packs, whirlpool, infrared, Hubbard tank, paraffin, moist air).
21. Assists patients in walking with crutches or walker.
22. Assists with self-care and active range of motion exercises.

RADIOLOGIC AIDE:

1. Prepares patients for diagnostic X-rays.
2. Positions patients for diagnostic X-rays.
3. Positions patients for therapeutic X-rays.
4. Utilizes safety equipment to guard against radiation.
5. Measures radioactive materials under the direction of the radiologist.
6. Handles radioactive materials safely.
7. Inventories supplies and equipment.
8. Prepares contrast media.
9. Transports patients via stretcher or wheelchair.

10. Obtains patient charts from the floor.
11. Transports portable equipment.
12. Applies common safety measures.
13. Utilizes aseptic techniques.
14. Mixes film processing solutions.
15. Maintains film hangers and cassettes.
16. Numbers cassettes and screens.
17. Operates automatic film processing machine.

RECEPTIONIST AIDE:

1. Arranges brochures and magazines.
2. Distributes mail.
3. Processes outgoing correspondence.
4. Types correspondence and forms.
5. Arranges displays.
6. Files patient records.
7. Pulls patient records from the files.
8. Bills patients.
9. Delivers messages.
10. Receives telephone calls.
11. Greets visitors.
12. Reminds patients of scheduled appointments.
13. Makes appointments and referrals.
14. Fills out basic information forms.

RECREATIONAL THERAPY AIDE:

1. Assists with active range of motion exercises.
2. Assists with passive range of motion exercises.
3. Follows physicians' prescriptions for activity under the direction of the therapist.
4. Plans and supervises arts and crafts activities (woodworking, ceramics, gardening, cooking, serving, needlework, coin and stamp collecting, painting, drawing, games, singing, dancing).
5. Plans and supervises field trips and outings.
6. Assists patients in walking with canes, crutches, or walkers.
7. Plans and supervises community projects.
8. Inventories and orders supplies and equipment.
9. Stores and maintains supplies and equipment.
10. Assists in public relations programs.
11. Prepares work materials.
12. Reports patients' progress.

RESPIRATORY THERAPY AIDE:

1. Cleans and maintains equipment (Bird respiratory circuit, PR-2 respiratory circuit, MA-1 respiratory circuit, CPAP respiratory circuit, heated aerosol, Bourns respiratory circuit, Dranger respiratory circuit).
2. Administers I.P.P.B. treatment.
3. Administers assister respirator.
4. Administers aerosol generator, steam vaporizer.
5. Administers aerosol generator, bubbler type.
6. Administers aerosol generator, jet type.

7. Administers humidifier (nebulizer and ultrasonic).
8. Administers portable or piped oxygen (nasal, mask, tent).
9. Determines and reports adverse conditions.
10. Operates and administers bronchodilator.
11. Records treatment given.
12. Transports patients.
13. Positions patients for treatment.
14. Inventories and stocks supplies and equipment.

SCHOOL HEALTH AIDE:

1. Inventories and requisitions supplies.
2. Replaces linen.
3. Cleans thermometers.
4. Types correspondence and forms.
5. Assists with the maintenance of student health records.
6. Files patient records.
7. Receives telephone calls.
8. Greets patients.
9. Measures patients' height and weight.
10. Takes oral temperature.
11. Takes pulse and respiratory rate.
12. Takes blood pressure.
13. Records vital signs.
14. Assists in teaching principles of personal and dental hygiene.

15. Assists in teaching principles of nutrition.
16. Applies ice bags and heating pads.
17. Cleans simple wounds.

WARD CLERK:

1. Admits new patients to the ward.
2. Discharges patients.
3. Answers the intercom.
4. Handles emergency use of intercom (fire, Code Blue, cardiac arrest).
5. Distributes mail.
6. Delivers messages.
7. Receives telephone calls.
8. Makes telephone calls as requested.
9. Makes appointments and/or referrals.
10. Greets and directs visitors.
11. Fills out daily census sheets.
12. Fills out dietary sheets.
13. Notifies dietary department of dietary changes.
14. Orders dietary supplements of stock nourishments.
15. Prepares patient charts.
16. Records vital signs.
17. Inventories and requisitions supplies.
18. Labels requisitions with addressograph.

SECTION 1.6

HOW TO PLAN A COURSE USING THE BASIC TASK INVENTORY

Presented below is a ten-step process for planning a health occupations training program or course of study.

STEP 1: Examine each entry-level task. Entry-level tasks form the building blocks of a competency-based curriculum. Consider what is meant by each task statement, how it differs from other task statements in the inventory, and how it relates to: (1) the needs of your students, (2) the educational priorities of your school, (3) the facilities, equipment, and instructional materials available to you, and (4) the time available for instruction.

STEP 2: Rank the tasks in the order of their importance. Keeping in mind the educational priorities, needs, and resources of your school and students, rank the entry-level tasks in the order of their importance. Your first approach should be to divide the tasks into more manageable clusters, such as: 1 = most important, 2 = average importance, and 3 = less important. Then rank the tasks within each of these clusters. The end result of this effort will be a ranked list of task statements ranging from most important to least important with regard to your educational priorities, needs, and resources. If several people are involved in course planning, their ranking of the tasks should be done independently.

STEP 3: Rerank the tasks. After a short period of time has elapsed (one or two weeks), those individuals who initially ranked the tasks should repeat Steps 1 and 2. Do not refer to initial rankings during this step.

STEP 4: Resolve any differences in the task rankings. In order to improve the reliability of the rankings, resolve any differences through group discussions and a reexamination of the tasks.

STEP 5: Review your ranked entry-level task list. Review the list of tasks to determine if you have a manageable number of tasks to teach in the time allotted for the training program. Drop the lowest-ranked tasks until a manageable number of tasks remain.

STEP 6: Sequence your entry-level task list. Sequence the tasks in the approximate order in which they will be taught. (The sequence may be slightly altered when, based on the tasks, you begin developing or selecting LAPs). There are two basic ways in which to sequence tasks: one is based on the order in which tasks are performed on the job, and the other is based on a building block concept. These two methods are described in more detail below. In actual practice, both sequencing methods have their place in course development. Deciding which method to use will depend on the content and performance required in a particular task or group of tasks.

- METHOD 1: Job Performance Order. This method provides the student with training in performing a group of tasks as they actually would be performed on the job. The sequence may be determined through employer interviews, the establishment of an occupational advisory board, or collaboration with local training directors or supervisors.

- METHOD 2: Building Block Learning. In this method, the initial skills and knowledge taught serve as basic "building blocks" for subsequent instruction. In general, a student should progress from the simple to the complex, from the familiar to the unfamiliar, and from the concrete to the abstract. Easily learned tasks or broad concepts applicable throughout the program should be placed at the beginning of the course. Similarly, more complex tasks that depend on mastery of several simpler tasks should be placed near the end of the course.

STEP 7: Select general knowledge concepts for course content. General knowledge concepts form the academic basis for effective performance of health care tasks. Section 2.3 in Part Two of the guide includes examples (drawn from the LAPs in Part Three) of general knowledge concepts relevant to health occupations, categorized according to six major competency areas. Since the general knowledge concepts relate to topics that may be taught in academic courses (such as sociology, psychology, English, and science), you may want to coordinate your selection of concepts with teachers of those courses.

STEP 8: Develop additional general knowledge concepts. Add your own concepts to those cited in Section 2.3. The listing of concepts supports the task list you developed in previous steps. When you have completed this step you will have two lists: (1) a sequenced list of competency-based entry-level tasks and (2) a list of general knowledge concepts which describe the academic groundwork for effective performance of the tasks. These two lists form the content of your course.

STEP 9: Insert the general knowledge concepts into your course sequence. In Step 6 above you determined the appropriate order in which the tasks will be taught in the course. Now, place the general knowledge concepts into that sequence so that they support the learning of the tasks.

STEP 10: Contact health care agencies in your local area. In your course planning you should acquaint local health care agency personnel with your course of study, approach, and instructional activities. They may be able to provide some useful suggestions about involving students in cooperative education programs, volunteer projects, and Extended Campus activities. In this connection, you may wish to consult the *Guidelines for Utilizing the Extended Campus Method* available from the Illinois Office of Education, Department of Adult, Vocational and Technical Education.

Essentially, the instructor should review the Basic Task Inventory in Section 1.4, the task inventories for specific jobs found in Section 1.5, and the Learning Activity Packages (LAPs) in Part Three of this guide to build a course of study through the ten-step process described above.

Part Two of the guide provides a more detailed description of course or program development, based specifically upon the incorporation of the LAPs in Part Three.

PART TWO

Guide for Program Development

SECTION 2.1

PURPOSE AND USE OF PART TWO OF THE GUIDE

Part Two of the guide is designed to assist the instructor in adapting Learning Activity Packages (LAPs) to the needs of a particular course or program. The user is advised to review the 28 LAPs presented in Part Three in order to facilitate understanding of the program development guidelines presented here.

SECTION 2.2 describes the curriculum goals upon which the development of the LAPs was based.

SECTION 2.3 provides a description of general competency areas that the LAPs are intended to address, and keys each LAP to specific competencies within each area.

SECTION 2.4 keys each LAP to the type of competency (enabling, enhancing, or enriching) that it is intended to develop.

SECTION 2.5 provides a Program Planning Matrix for instructors to use in developing programs for a specific health occupation.

SECTION 2.2

CURRICULUM GOALS OF LEARNING ACTIVITY PACKAGES

Curriculum development begins with the establishment of goals. Goals guide all subsequent program development and should bear a close relationship to tasks and learning objectives. The organization of tasks and objectives under respective goal statements is one way of deciding what should and should not be covered in the curriculum.

Following is a list of the curriculum goals upon which the development of the LAPs in Part Three of this guide was based.

1. To provide the student with a basic understanding of the concepts and philosophy of health care.

2. To assist the student in gaining an awareness of the use of self as a therapeutic agent in the provision of health services, and to provide the student with effective communication skills.

3. To provide the student with basic information regarding normal human growth and development and an understanding of those conditions which affect patient behavior.

4. To provide the student with an understanding of the principles of health care programming and skills in applying those principles in practical situations, including skill in analyzing and adapting activities to meet specific patient needs.

5. To provide the student with a basic orientation to professionalism and its importance in the delivery of health services, including an understanding of interrelationships with other disciplines.

6. To equip the student with the knowledge, skills, and abilities necessary to becoming an effective entry-level worker in the health care field, including orientation to and preparation for a career-ladder progression in the field.

7. To provide the student with an understanding of the applicability of health care training to other occupational areas.

8. To provide the student with opportunities to gain practical experience in working with patients in "real-life" situations.

9. To provide the student with an understanding of the nature, scope, and diversity of jobs in the health care field.

10. To assist the student in choosing a specific health occupations career, based on a realistic assessment of personal aptitudes, abilities, and interests.

SECTION 2.3

GENERAL COMPETENCY AREAS

The 28 Learning Activity Packages in Part Three of the guide can be viewed as providing instruction related to a number of *competency areas* broadly applicable to health occupations. The term "competency" is defined as "adequacy for task performance" or "possession of required knowledge, skills, and abilities" (Houston & Houston, 1972).

The first four competency areas are specific to health occupations careers. They are:

I. Foundations of Health Care Competencies
II. Patient Care Competencies
III. Basic Medical Knowledge Competencies
IV. Intermediate Medical Knowledge Competencies

Two additional competency areas are generic in nature; that is, they are broadly applicable, not only to the health occupations field, but to many other occupational fields that require similar skills and knowledge. It is these skills that are most often required by employers of workers at the entry level, and it is these skills that are most often excluded from programs of study in the schools. These two competency areas are:

V. Social Skills Competencies
VI. Occupational-Related Basic Skills Competencies

The following listing organizes the 28 LAPs in Part Three by competency area and keys each LAP to specific competencies within each area. These specific competencies may be regarded as objectives related to each LAP. The organizational structure presented here is *not* intended to represent a course or program sequence; its only function is to assist users of the guide in selecting LAPs appropriate to their own curriculum goals.

Only one LAP provided in Part Three is directly related to competencies included in Area VI (Occupationally-Related Basic Skills Competencies). The instructor is encouraged to develop supplementary LAPs dealing with counseling and guidance skills, information-gathering and information-giving skills, and corresponding skills.

I. FOUNDATIONS OF HEALTH CARE COMPETENCIES

LAP 1

1. Demonstrate knowledge of course philosophy, goals, objectives, and activities.

LAP 2

2. List good study habits and understand the decision-making process.
3. Demonstrate proper personal hygiene.
4. Demonstrate knowledge of human behavior.
5. List factors which influence the development of behavior.

LAP 3

6. Know the historical development of health technology and identify major medical discoveries and events.
7. Acquire knowledge of career opportunities in the health field.

LAP 4

8. Identify various departments within the organizational structure of health care facilities.
9. Identify the duties and responsibilities of administrative personnel.

LAP 5

10. Know the standard of ethics in the health field.
11. Practice behavior appropriate to the health field.
12. Know the qualifications of health care workers.

LAP 6

13. Know the legal requirements of health care jobs.
14. Identify the legal responsibilities of health care workers.

II. PATIENT CARE COMPETENCIES

LAP 7

1. List causes of accidents.
2. Promote safety consciousness.

LAP 7

3. List general rules of safety and fire prevention.
4. Know what to do in the event of fire in a health facility.
5. Demonstrate the use of different types of fire extinguishers.

LAP 8

6. List sources of nutrients and common diets.
7. List health careers that relate to special dietary needs.
8. List diseases associated with improper or inadequate diet.

LAP 9

9. Demonstrate good posture.
10. Explain why posture is important to health.
11. Demonstrate good body mechanics when lifting or moving heavy objects or when moving or positioning patients.
12. Transport patients in wheelchairs and on stretchers.
13. Assist patients in using walkers and crutches.

LAP 10

14. Explain how health care facilities and agencies work together.
15. Explain how optimum health care is achieved.
16. List important factors of observation in patient care.
17. Describe the proper method of reporting and recording observations.
18. Know how to check vital signs.
19. Know the normal and abnormal ranges of vital signs.

LAP 11

20. Identify the equipment used in a physical examination.
21. Assist during a physical examination.
22. List procedures and equipment used in taking various specimens.
23. Discuss special tests administered to patients.

III. BASIC MEDICAL KNOWLEDGE COMPETENCIES

LAP 12

1. Know and explain the importance of the principles of medical and surgical asepsis.
2. Demonstrate good asepsis technique.

LAP 13

3. Manipulate a microscope.
4. Define microbiology.
5. Describe infectious disease.
6. Describe conditions favorable to growth of microbes.
7. Describe the prevention of infection.
8. Describe immunity.

LAP 14

9. Describe and identify various parts of the skin and its care.
10. Recognize the need for proper nail care.
11. Know the composition and use of nails.
12. Recognize the components of hair, types of hair, and its proper care.

LAP 15

13. Know the male and female reproductive systems.
14. Know the hormones associated with reproduction.
15. Know the functions of the reproductive system.

LAP 16

16. Name various body systems.
17. Identify and describe the body cavities and organs.
18. Locate the body cavities and organs on a model or drawing.

LAP 17

19. Demonstrate skills appropriate for treating minor emergencies.
20. List procedures for assessing minor emergencies.
21. List procedures for handling emergencies in clinical situations.

IV. INTERMEDIATE MEDICAL KNOWLEDGE COMPETENCIES

LAP 18

1. Describe the functions of bones.
2. Identify the different types of bones.
3. Describe the location of different types of bones.
4. Describe the composition of bones.
5. List the major portions of the skeletal system.
6. Describe, identify, and locate joints.
7. Describe how age and sex affect bone structure.
8. Identify and describe the different types of bone fractures.

LAP 19

9. Describe and identify the different types of muscles.
10. Discuss the origin, insertion, and action of important muscles.
11. Describe the use and benefit of tendons and ligaments.
12. Describe the different types of muscle injuries.
13. Describe and identify good posture.

LAP 20

14. Name the components of the circulatory system.
15. Describe the general function of the components of the circulatory system.

LAP 21

16. Describe and explain the various elements of respiration.
17. Identify the difference between external and internal respiration.
18. Describe the functions of the respiratory organs.
19. Explain the functions of the larynx.
20. Describe the mechanics of breathing.

LAP 22

21. Identify the parts and functions of the digestive system.

LAP 23

22. Explain the process of removal of waste products from the blood and the body.

LAP 24

23. Identify the divisions of the nervous system.
24. Describe the functions of the nervous system.
25. Identify the types of nerves.
26. Recognize the structures of the brain and their functions.
27. Identify the specialized areas of the cerebrum.
28. Name the ways in which the body receives sensory information.
29. List basic parts of the eye, ear, nose, and tongue and describe their functions.

LAP 25

30. Explain the function of the endocrine glands.
31. Identify the endocrine glands.
32. Identify the hormone secretions of the different glands.

V. SOCIAL SKILLS COMPETENCIES

LAP 26

1. Discuss the basic knowledge relating to life style.
2. Discuss the fears and feelings of the client based upon individual life style.
3. Recognize the need to adjust to the needs of the client according to his/her physical and mental condition.
4. Understand the psychology of illness.
5. Understand the training requirements of health service workers in the mental health area.
6. Understand various therapies, physical and mental, used on behalf of clients.

LAP 27

7. Recognize the pressures that can affect a patient's behavior.

8. Know the individual's rights as a patient.

9. List key elements in maintaining a safe, comfortable, and attractive environment for the patient.

VI. OCCUPATIONALLY-RELATED BASIC SKILLS COMPETENCIES

LAP 28

1. Demonstrate effective communication skills.

2. Display cooperation, tact, courtesy, respect, dependability, trustworthiness, acceptance of authority, and tolerance when working for and with people.

LAP to be developed

3. Demonstrate effective counseling and guidance skills.

   - Act as expediter in securing medical services, such as helping to fill out forms.
   - Act on plan to help client with problem.
   - Communicate feelings of concern, trust, and confidence to client.
   - Accommodate the physically, mentally, or emotionally disabled client.
   - Counsel clients to the limits of personal knowledge.
   - Orient clients to the limits of personal knowledge.

LAP to be developed

4. Demonstrate effective information-gathering skills.

   - Assist client in obtaining necessary records and/or documents.
   - Detect basic needs of client.
   - Gather and compile information.
   - Identify resources available to client.

LAP to be developed

- Know services available to client.
- Interview client to obtain medical information.
- Interview client to determine problem.
- Learn where and how emergency services can be secured (in own facility and elsewhere).
- Observe and report needs of client.
- Obtain a history from client.
- Report to and discuss with supervisor problems of clients and conditions found in facilities.

LAP to be developed

5. Demonstrate effective information-giving skills.
   - Act as information and referral person concerning medical resources.
   - Assist client in observing rules and procedures of facility.
   - Attend training sessions in order to gain and transmit new knowledge and understanding.
   - Explain the nature of services available and eligibility requirements to clients.
   - Encourage clients to use community resources.
   - Establish and maintain contact with disadvantaged persons and encourage them to seek services.
   - Give simple instructions to clients.
   - Help clients plan for new situations.
   - Interpret programs of services to clients.
   - Provide information on community-wide resources.
   - Work with workers in other occupations (police, clergy, public health nurses) to include medical service information in local plans.

LAP to be developed

6. Demonstrate effective corresponding and related skills.

- Contact appropriate agencies to secure and use services and resources to help clients.
- Contact agencies and individuals at client's request.
- Expedite obtaining services for client (fill out forms, get medication, provide and arrange for transportation).
- Fill out agency or facility fact sheet with information supplied by client.
- Fill out statistical forms.
- Fill out agency forms and follow procedures prescribed by agency.
- Keep accurate records of contact with families and of services rendered.
- Keep necessary records and learn departmental and clinic procedures.
- Maintain case files, referral directories, and information on resources and similar office work pertaining to the medical program.
- Make contacts with patients and provide materials describing agency services and requirements for participation.
- Make routine phone calls.
- Obtain periodic progress information.
- Read or write letters or other written materials for clients who are unable to read or write.
- Record case information for agency files.
- Write up results of interviews.

SECTION 2.4

ENABLING, ENHANCING, AND ENRICHING COMPETENCIES

For purposes of flexibility, this section organizes the LAPs presented in Part Three according to the *type* of competencies they address. The three types of competencies are defined as follows:

△ *ENABLING COMPETENCIES:* These may be considered "fundamentals" for the entry-level health care worker. It is suggested that mastery of these competencies would constitute the essential requirements for entry-level positions.

○ *ENHANCING COMPETENCIES:* These competencies are more closely associated with the "application" of basic knowledge and skills required in the delivery of health care services to clients.

□ *ENRICHING COMPETENCIES:* These competencies may be associated with "advancement," meaning not only the advancement of quality services to clients but also the advancement of the health care worker within the "career ladder" framework.

The following listing keys each LAP to its respective type of competency.

LAP NUMBER	CATEGORY
①	Orientation I
②	Orientation II
③	Historical Medical Events
④	Health Care Facilities
⑤	Medical Ethics, Conduct, and Qualifications for the Health Care Worker

LAP NUMBER	CATEGORY
⑥	Introduction to Law for the Health Care Worker
⑦	Safety Skills
⑧	Nutrition and Special Dietary Needs
⑨	Body Mechanics
⑩	The Health Care Team and the Health Care Worker's Role and Responsibilities
⑪	Physical Examinations and Tests
⑫	Aseptic Technique
⑬	Microorganisms
⑭	The Integumentary System
⑮	The Reproductive System
⑯	Basic Anatomical Terms and Components
17	Basic Emergency Care
18	The Skeletal System
19	The Muscular System
20	The Circulatory System
21	The Respiratory System
22	The Digestive System
23	The Urinary System

LAP NUMBER	CATEGORY
□ 24	The Nervous System
□ 25	The Endocrine System
㉖	Psychology of Illness
㉗	The Patient and the Patient's Environment
△ 28	Communication Skills
△	Counseling and Guidance Skills
△	Information-Gathering Skills
△	Information-Giving Skills
△	Corresponding and Related Skills

SECTION 2.5

HEALTH OCCUPATIONS PROGRAM PLANNING MATRIX

To further assist users of the curriculum guide in organizing courses for health occupations training, this section presents a Program Planning Matrix which may facilitate the selection of LAPs most appropriate to the instructor's specific needs.

The sample Program Planning Matrix on the following pages is a convenient organizational tool which allows the instructor to move from the selection of tasks (see Sections 1.4 through 1.6) to the selection of appropriate Learning Activity Packages from Part Three. The matrix allows the user to (1) assess the full scope of the health care occupations field at one glance, (2) map the interrelationships among the tasks, competencies, and LAPs, (3) assess what is and is not available in this guide, and (4) list occupations in the health field suitable to his or her training needs.

The matrix on pages 64-65 presents three sample jobs in the health care field and documentation of the competencies and LAPs appropriate to these occupations. To use the matrix in course planning, the instructor should (1) list those jobs for which he or she wishes to provide training, (2) review the Basic Task Inventory for tasks appropriate to such training, and (3) review and select relevant LAPs from Part Three of the guide. An "X" is entered in those "cells" of the matrix which are applicable to the job entry. Using the matrix and the available LAPs as a starting point, the instructor can determine what instructional materials are available and can secure supplementary resource materials to complete program preparation.

It is suggested that the instructor validate selections and decisions by conferring with other instructors in the field, with employers, and with an advisory committee. In this way the instructor will be able to confirm that the scope and sequence of the planned curriculum represent appropriate learning outcomes.

HEALTH OCCUPATIONS PROGRAM PLANNING MATRIX
(Sample Listings)

Occupational Area	Job Title	I						II				
		Foundations of Health Care						Patient Care				
		LAP						LAP				
		①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
Medical Institutions	Licensed Practical Nurse	X	X	X	X	X	X	X	X	X	X	X
Medical Institutions	Nurse Aide	X	X	X	X	X	X	X	X	X	X	X
Medical Institutions	Medical Records Aide	X	X	X	X	X	X					

△ = Enabling Competencies
○ = Enhancing Competencies
☐ = Enriching Competencies

Competency Area III						IV								V		VI			
Basic Medical Knowledge						Intermediate Medical Knowledge								Social Skills		Occupationally-Related Skills			
	LAP					LAP								LAP		LAP			
⑫	⑬	⑭	⑮	⑯	⑰	$\boxed{18}$	$\boxed{19}$	$\boxed{20}$	$\boxed{21}$	$\boxed{22}$	$\boxed{23}$	$\boxed{24}$	$\boxed{25}$	㉖	㉗	△28	△	△	△
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
X	X	X	X	X	X									X	X	X			
X	X	X	X	X												X			

PART THREE

Learning Activity Packages

LEARNING ACTIVITY PACKAGE 1

CATEGORY:	Orientation I
FOCUS:	Course philosophy, goals, and objectives; resources available for use in the classroom and the Extended Campus
ACTIVITIES:	Class discussion
OBJECTIVE:	The student will be able to demonstrate an understanding of the philosophy, goals, and objectives of the course.
RATIONALE:	The purpose of this unit is to acquaint the student with the philosophy, goals, objectives, and activities of the course so that the student will be psychologically prepared to meet the expectations of the program.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Pamphlet:
   Guidelines for Utilizing the Extended Campus Method
2. Student handbook
3. Overhead transparency and/or handout on course philosophy and goals (see page 71)
4. Handout on course outline and objectives (see page 71)
5. Handout on Extended Campus rules and regulations, Extended Campus facilities to be visited

CONTENT OUTLINE:

A. School
   1. Introduction to school personnel
   2. Rules and regulations
   3. Tour of school (if appropriate for new students)

B. Course
  1. Purpose of health occupations program
  2. Philosophy
  3. Goals
  4. Objectives
  5. Course outline
  6. Methods of evaluation/grading system
  7. Textbooks and resource materials
  8. Assignments
  9. Extended Campus
    a. Definition
    b. Facilities to be visited
    c. Rules and regulations

C. Review of Health Careers
  1. Nurse
  2. Medical office assistant
  3. Medical records assistant
  4. Medical secretary
  5. Ward clerk
  6. Medical laboratory assistant
  7. Dental assistant
  8. Others

SUGGESTED LEARNING ACTIVITIES:

1. Arrange desks in a circle. Introduce yourself as the instructor and ask students to introduce themselves to the class.

2. Distribute copies of school rules and regulations (student handbook).

3. Explain the purpose of the health occupations program.

4. Using an overhead transparency and/or student handout, lead a class discussion on the course philosophy and goals.

5. Distribute copies of the course outline and objectives and discuss.

6. Explain the Extended Campus and distribute copies of the rules and regulations to be observed during Extended Campus experiences.

7. Acquaint students with the evaluation methods, grading system, and special rules that pertain to the classroom situation.

8. Distribute textbooks and discuss resources available in the library, guidance center, and classroom.

9. Review health careers to be studied during the course.
   - Job description
   - Special preparation and educational requirements
   - Job opportunities
   - Approximate salary

ALTERNATE LEARNING ACTIVITIES:

1. Divide students into groups of two. Ask students to interview each other and then introduce each other to the class and orally report the results of their interviews.

2. Lead class discussion on the Extended Campus and the importance of observing the rules in order to function effectively within the Extended Campus.

3. Arrange a field trip to allow students to tour an Extended Campus facility.

SUGGESTED EVALUATION MEASURES:

1. Have students list and discuss the following:
   Philosophy and goals of the health occupations program
   Rules and regulations of the course
   Rules and regulations pertaining to Extended Campus activities

2. Have students research and prepare a written or oral report on a given health career.
   - Describe role
   - List special preparation and educational requirements
   - Discuss job opportunities
   - State approximate salary

EXAMPLE OF COURSE PHILOSOPHY

The rapid growth and expansion of health agencies and services in the past ten years has created many employment opportunities in the health care field. The purpose of this course is to acquaint students with these job opportunities and to provide students with appropriate entry-level skills and/or incentives to continue their education in a specific health-related occupation.

EXAMPLES OF COURSE GOALS

1. To give students knowledge of skills common to health care workers.
2. To help students discover their career potentials and preferences.
3. To prepare students for further education or job entry upon graduation.

EXAMPLES OF COURSE OBJECTIVES*

1. Students will be able to demonstrate knowledge of skills common to health care workers.
2. Students will demonstrate a better understanding of human behavior and will be able to develop appropriate rapport with clients and coworkers.
3. Students will be able to apply learned skills to further education in specific health care careers or to employment upon graduation.

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* A course outline should also be prepared, providing a specific list of topics in the sequence in which they will be studied.

LEARNING ACTIVITY PACKAGE 2

CATEGORY:	Orientation II
FOCUS:	Awareness of good learning habits and the decision-making process; presentation of student organizations; human behavior in both good health and illness; patients' spiritual needs
ACTIVITIES:	Reading assignments/audio-visual presentations/group projects/class discussion/guest speakers
OBJECTIVE:	The student will be able to list good study habits and show how proper personal hygiene and health are important to the health care worker. Also, the student will demonstrate a better understanding of human behavior and will be able to list factors which influence the development of behavior, including predictable factors such as illness.
RATIONALE:	The purpose of this unit is to develop the student's study habits and ability to use the decision-making process, and also to introduce the student to the Illinois Vocational Student Organization (IVSO). Furthermore, this unit will develop the student's awareness of how human behavior is developed and how behavior is affected during illness.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Text:
   Understanding Human Behavior: A Guide for Health Workers

2. Pamphlets:
   How You Can Become a Better Student
   IVSO Local Advisor's Handbook
   Memo to Parents

3. Film:
   Illinois Coordinating Council for Vocational Student Organizations
   Illinois Office of Education

4. Filmstrip:
   Developing Your Study Skills
   Guidance Associates

5. Immunization chart, available from local Public Health Department

6. Handout on seven steps to decision-making (see Suggested Learning Activity 9)

CONTENT OUTLINE:

A. Learning
   1. Motivation for study
   2. Environment for study
   3. Aids to develop study habits

B. Personal Hygiene
   1. Cleanliness
      a. Skin
      b. Hair
      c. Nails
   2. Dental health
   3. Nutrition
   4. Rest, recreation, and exercise
   5. Immunizations

C. Student Organizations

D. Process of Decision-Making

E. Introduction to Aspects of Health and Human Behavior
   1. Definition of health
   2. Types of health care
      a. Preventive
      b. Therapeutic
      c. Maintenance
   3. Health care agencies and institutions
      a. Physicians' offices
      b. Hospitals
      c. Nursing homes
      d. Clinics
      e. Public health agencies
      f. Home care

F. Understanding Influences on Human Behavior
   1. Heredity
   2. Environment
   3. Socioeconomics

4. Prejudices and intolerance
    a. Verbal
    b. Nonverbal

G. Essential Needs of All People
  1. Comfort and health
  2. Approval and satisfaction
  3. Acceptance and security

H. Spiritual Development
  1. Understanding others
    a. National background
    b. Racial background
    c. Religious background
  2. Care in value judgments

I. Illness and Patient Behavior

J. Coping with Patient Behavior

SUGGESTED LEARNING ACTIVITIES:

1. Hand out pamphlet *How You Can Become a Better Student* and discuss.

2. Show filmstrip *Developing Your Study Skills* and discuss key points.

3. On a chalkboard, list examples of proper and improper environments in which to study.
    - Proper ventilation
    - Good lighting
    - Conducive atmosphere
    - Proper posture

4. Discuss aids for study.
    - Determining important points in assigned lessons
    - Choosing key points in lectures
    - Reviewing exams

5. Demonstrate proper dress and good grooming for health care workers by using pictures, showing videotapes of various health care employees, or bringing in actual uniforms. Stress the following:
    - Good personal hygiene
    - Modest makeup
    - Care in using aftershave lotion and cologne
    - Proper uniforms

6. Show film on student organizations and discuss their importance, including the significance of an emblem.

7. Discuss training in leadership, character, and proper work attitude offered by student organizations.

8. Invite a guest speaker (a state youth advisor, IVSO local advisor, student from an organization such as FHA or FFA, etc.) to discuss student organizations.

9. Disseminate student handout on the seven steps to decision-making.
   - Identify the problem
   - Identify possible alternate solutions
   - Identify possible solutions
   - Identify varying factors of influence
   - Make a tentative choice
   - Take action
   - Evaluate

10. Lead class discussion on the importance of the health care worker's knowledge of the steps to decision-making. Go through each step in relation to joining the IVSO.

11. Divide class into small groups. Ask each group to develop its own problem and then go through the steps to decision-making in order to solve the problem. Have groups present their solutions to the class.

12. Have students make up a list of all agencies and institutions which offer health care services.

13. On a chalkboard, have students list ways to maintain one's physical health.

14. Pass out immunization charts and discuss the types of immunization programs available, both for humans and for animals.

15. Assign reading from *Understanding Human Behavior*, Topic 4, pages 26-37. Discuss reading and briefly describe factors that influence behavior.

16. Assign reading from *Understanding Human Behavior*, Topics 5-7, pages 38-67. Discuss.

17. Have students describe customs or beliefs that influence attitudes toward individuals of a different national, racial, or religious background.

18. Invite a guest speaker from the American Council of Churches to discuss spiritual development and how illness can affect this development.

19. Assign reading from *Understanding Human Behavior*, pages 139-148.

20. Have students give examples of how they behave differently when ill.

21. Assign reading from *Understanding Human Behavior*, pages 149-163.

22. Have students list ways of coping with patient behavior. Refer to such common behaviors as regression, aggression, hostility, crying, uncooperativeness, inappropriate cheerfulness or friendliness, and egocentrism.

SUGGESTED EVALUATION MEASURES:

1. Have students describe the proper environment for study.

2. Have students list the aids to study.

3. Assign and evaluate a written report on the advantages of belonging to the IVSO.

4. Have students list the seven steps to decision-making.

5. Assign and evaluate a written report dealing with a hypothetical problem-solving situation.

6. Assign and evaluate a written report on the importance of good personal hygiene and good health for health care workers.

7. Have students list the factors that influence the development of human behavior.

8. Have students report on ways in which behavior is altered when the individual is ill and how the health care worker can cope with such alterations.

9. Assign and evaluate a written report on how national, racial, and religious background can affect health care.

LEARNING ACTIVITY PACKAGE 3

CATEGORY:	Historical Medical Events
FOCUS:	History of the development of health careers; achievements of medical science and technology
ACTIVITIES:	Class discussion/individual and group projects/audio-visual presentations/Extended Campus
OBJECTIVE:	The student will be able to identify historical facts about health careers and medical science and relate these facts to current trends and career development.
RATIONALE:	The purpose of this unit is to acquaint the student with the historical development of health technology and with major medical discoveries and events. Also, the student will gain knowledge of career opportunities brought about through new developments in the health field.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   The Great Doctors
   Great Men in Medicine
   Great Women in Medicine
   Modern Health
   Nursing Skills for Allied Health Services
   Six Great Doctors: Harvey, Pasteur, Lister, Pavlov, Ross, Fleming
   Your Career in Health Care

2. Films:
   American Doctor
      American Osteopathic Association
   Mobilization of the Human Body
      Association Films, Inc.
   Discovery of Anesthesia
   The Tragic Hour of Dr. Semmelweis
      Columbia Broadcasting System
   Health Heros: The Battle Against Disease
      Coronet Instructional Films

Antibiotics
How Our Bodies Fight Disease
Immunization
   Encyclopedia Britannica Educational Corporation
Jonas Salk
   McGraw-Hill Book Company
What Price Health?
   National Broadcasting Company
The Quest (Insulin)
   National Film Board of Canada

3. Filmstrips:
Unmasking the Germ Assassins
   Creative Education Inc.
Avoiding Germs
   Curriculum Materials Corporation
Doctors in Action
   Educational Activities Inc.
Fighting Cancer
   Listening Library Inc.
Antibiotics: Disease-Fighting Champions
Bacteria Good and Bad
   McGraw-Hill Book Company
Body Defenses Against Invasion by Disease
Germ Invaders
How Chemicals and Antibiotics Fight Disease
Invasion by Disease
Investigations of Bacterial Heredity
The Salk Vaccine
War Against Cancer
   Popular Science Publishing Company

4. Overhead Transparencies (suggested for development)
Health Problems of the Future
Moral and Ethical Health Problems
Population Explosion

CONTENT OUTLINE:

A. Definition of Health

B. Control of Disease
   1. Immunization
   2. Antibiotics

   3. Vaccination
   4. Pasteurization
   5. Sterilization

C. Developments in Surgery
   1. Sterilization
   2. Anesthetics
   3. Organ replacement
   4. Surgery team
   5. Technology

D. Achievements in Medical Science and Technology
   1. Bacteria
   2. Microorganisms
   3. Medical use of sulphur
   4. Insulin
   5. Penicillin
   6. Wide spectrum of antibiotics and drugs

E. Population Explosion Caused by Medical Science
   1. More people requiring treatment (geriatrics)
   2. Development of health facilities
   3. Need for health and accident insurance
   4. Development of trauma centers (staff needs)
   5. Development of paramedical teams

F. Increases in Deaths from Chronic Diseases
   1. Number one killer—heart disease
   2. Second leading cause of death—cancer
   3. Third leading cause of death—stroke
   4. Fourth leading cause of death—accidents
   5. Major medical problem in the U.S.—mental health

G. Health Problems of the Future
   1. Food shortages
   2. Fuel shortages
   3. Housing
   4. Pollution
   5. Moral and ethical issues

H. Health Occupations Related to Medical Research
   1. Laboratory technician
   2. Medical technician
   3. Electrocardiograph technician
   4. Electroencephalograph technician
   5. Medical assistant
   6. Radiologic technician
   7. Physical therapist

8. Chemist
9. Practical nurse
10. Research scientist
11. Cytotechnologist
12. Pathologist
13. Operating room technician
14. Respiratory therapist
15. Paramedic
16. Nurse
17. Hospital administrator
18. Histologic technician
19. Doctor (specialist)

SUGGESTED LEARNING ACTIVITIES:

1. Divide class into small groups and ask each group to develop a definition of health and health care. Combine group definitions on a chalkboard, discuss, and select a comprehensive definition acceptable to the class.

2. Have students prepare oral and/or written reports on individuals who have made outstanding contributions to health, relating their personal characteristics, education, and accomplishments.
   - Drs. Banting and Best
   - Charles Chamberlain
   - Marie Curie
   - Lena F. Edwards
   - Alexander Fleming
   - Hippocrates
   - Edward Jenner
   - Sister Kenny
   - Joseph Lister
   - Florence Nightingale
   - Louis Pasteur
   - Anton VanLeeuwenholk
   - Jane Cooke Wright Jones (cancer/chemotherapy)
   - Percy Julian (drug for treatment of glaucoma—physotigmine)

3. Assign groups of students (three to five students per group) to prepare panel presentations on the following subjects:
   - Development of trauma centers
   - Paramedical teams
   - Health problems of the future
   - Moral and ethical health problems
   - Pollution problems including air, water, and sound

4. Have students compare the microscope they are presently using with the one Anton VanLeeuwenholk used in 1675.

5. Identify Marie Curie. Arrange a field trip to a local radiology department; ask department workers to explain radiologic technology and its relationship to the health care system. Visit three areas of specialization: radiation therapy, nuclear medicine, and diagnostic radiology. Ask personnel to explain the amount of training required, duties, salary, and career opportunities in each area.

SUGGESTED VOCABULARY LIST:

1. Anesthetics
2. Antibiotics
3. Bacteria
4. Chronic
5. Immunization
6. Microorganisms
7. Pasteurization
8. Sterilization
9. Trauma
10. Vaccination

LEARNING ACTIVITY PACKAGE 4

CATEGORY:	Health Care Facilities
FOCUS:	Organizational structure of health care facilities
ACTIVITIES:	Class discussion/individual and group projects/audio-visual presentations/guest speakers/Extended Campus
OBJECTIVE:	The student will be able to identify the various types of health care facilities and discuss their organizational structure. The student will also be able to identify and discuss the duties of administrative personnel.
RATIONALE:	The purpose of this unit is to familiarize the student with the different types of facilities available for client health care and the various organizational units within health care facilities. This unit will also acquaint the student with the team concept for providing health care.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Orientation to Health Occupations
   Your Career in Health Care

2. Pamphlet:
   Medical Careers Handbook—Horizons Unlimited

3. Films:
   A True Story About Hospitals
      American Hospital Association
   To Seek—To Teach—To Heal
      Associated Sterling Films
   The World of Work: Rescue Squad
      Encyclopedia Britannica Educational Corporation
   I Am a Doctor
   In the Medical Laboratory
   Medical Technology
   The Surgeon
      South Florida Hospital Association

4. Filmstrips:
   Careers in Science
   Doctors in Action
      Educational Activities, Inc.
   Careers in Health Services
      Educational Films, Inc.
   Making It in Human Services
      Listening Library, Inc.
   Areas of Specialization in Health
   Government Agencies and Health
   Health Personnel for Community Problems
   Skills to Meet Community Health Needs
      Minnesota Mining and Manufacturing Company
   Hospital Housekeeping's Place on the Hospital Team
      Pathoscope
   The Paramedic
      Pyramid School Products
   The Hospital Story
      Trainex Corporation

5. Cassettes:
   A Career in Dietetics
   Medicine—An Occupation for Adults
   Opportunities in Pharmacy
   Opportunities with a Career in Occupational Therapy
   Working as a Paramedic
      Listening Library, Inc.

6. Organizational chart from a local health care facility (e.g., hospital, nursing home, health center)

7. Health Occupations Survey Sheet (see page 87)

CONTENT OUTLINE:

A. Types and Functions of Health Care Facilities
   1. Hospitals
   2. Health maintenance organizations
   3. Clinics
      a. Neighborhood
      b. Private
   4. Nursing homes

5. Convalescent and rehabilitation centers
6. Home care services

B. Organizational Structure of Health Care Facilities
   1. Governing board
   2. Administrative personnel
      a. Administrator
      b. Assistant administrator
      c. Departmental directors
   3. Health care workers

C. Health Occupations Related to Health Care Facilities
   1. Accountant
   2. Admitting clerk
   3. Blood bank technician
   4. Chaplain
   5. Controller
   6. Credit manager
   7. Custodian
   8. Dietician
   9. Director of volunteer services
   10. Doctor (specialist)
   11. Electrocardiograph technician
   12. Electroencephalograph technician
   13. Emergency medical technician
   14. Emergency room technician
   15. Environment engineer
   16. Food service supervisor
   17. Food technologist
   18. Histologic technician
   19. Hospital administrator
   20. Housekeeping aide
   21. Inhalation assistant
   22. Inhalation technician
   23. Inhalation therapist
   24. Librarian
   25. Licensed practical nurse
   26. Linen room aide
   27. Medical laboratory assistant
   28. Medical laboratory technician
   29. Medical records technician
   30. Medical technologist
   31. Nurse's aide
   32. Nursing home administrator
   33. Nutritionist
   34. Occupational therapist

35. Pathologist
36. Personnel director
37. Pharmacist
38. Physical therapist
39. Physical therapist assistant
40. Psychologist
41. Radiologic aide
42. Radiologic technologist
43. Recreation therapist
44. Registered nurse
45. Safety engineer
46. Ward clerk/secretary
47. X-ray technician

SUGGESTED LEARNING ACTIVITIES:

1. Make or obtain a health care facility's organizational chart to display in the classroom. Use the chart to demonstrate the health care worker's place in the chain of command.

2. Have students sketch the basic organizational structure of a health care facility, indicating personnel and lines of authority.

3. Have groups of students visit various local health care facilities (e.g., nursing homes, hospitals, dental laboratories). Ask students to observe and evaluate the organizational structure, functions, and services offered and report their observations to the class. (See the Health Occupations Survey Sheet on page 87.)

4. Select career options within the administrative structure and ask students to prepare reports on these careers, emphasizing training required, duties, salary, and advancement opportunities.

5. Invite home care service personnel to speak to the class about the structure and functions of their service.

ALTERNATE LEARNING ACTIVITIES:

1. Show film *A True Story About Hospitals* and discuss the different departments described.

2. Ask students to collect and share career pamphlets, brochures, and newspaper clippings useful in making health career decisions.

3. Assign a group of students to develop a bulletin board display focusing on careers in health facilities, using available career pamphlets, brochures, and newspaper clippings.

4. Visit a local health department to determine what diseases are reportable in your community. Have students prepare reports naming the individuals who discovered the causes of these diseases and/or medications and vaccines for their treatment and prevention. (For example, Howard Ricketts discovered Rickettsia, which causes Rocky Mountain spotted fever and endemic typhus.)

SUGGESTED EVALUATION MEASURES:

1. Given a sketch of the organizational structure of a health care facility, have students indicate personnel at each level and the appropriate lines of authority.

2. After viewing the film *A True Story About Hospitals*, have students describe elements of five of the six departments of a hospital.

3. Have students write an essay on the general occupational hierarchy of health professionals.

4. Evaluate the oral and/or written reports prepared during learning activities.

5. Evaluate group presentations on health care facilities on content, value, and clarity.

6. Videotape individual or group presentations; ask students to evaluate themselves after viewing the videotape.

SUGGESTED VOCABULARY LIST:

1. Clinic
2. Convalescent
3. Extended care
4. Facility
5. Home care
6. Organization
7. Private care
8. Rehabilitation

HEALTH OCCUPATIONS SURVEY SHEET

________________________________	____________
Facility Being Surveyed	Number of Beds

POTENTIAL ENTRY-LEVEL OCCUPATIONS:
Dietary Aide, Geriatric Aide, Inhalation Therapy Aide, Laboratory Aide, Mental Health Aide, Nurse Aide, Psychiatric Aide, Pharmacy Aide, Rehabilitation Aide, X-Ray Technician Aide

- -

________________________________	____________
Occupation Being Surveyed	Employment Opportunities Per Year

ENTRY-LEVEL EMPLOYMENT REQUIREMENTS:

1. Licensing or certification? Yes ______ No ______

2. Essential competencies

   2.1 Skills ____

   ____

   ____

   2.2 Knowledge ____

   ____

   ____

   2.3 Attitudes ____

   ____

   ____

LEARNING ACTIVITY PACKAGE 5

CATEGORY:	Medical Ethics, Conduct, and Qualifications for the Health Care Worker
FOCUS:	Awareness of standards of ethical behavior and conduct for health care workers; basic qualifications required of health care workers
ACTIVITIES:	Lecture/class discussion/role-playing/Extended Campus
OBJECTIVE:	The student will demonstrate an understanding of the importance of ethics and proper conduct in health-related careers. The student will also be able to identify the basic qualifications expected of health care workers.
RATIONALE:	The purpose of this unit is to acquaint the student with the code of ethics for health care workers and the importance of behavioral conformity to this code. Furthermore, this unit will develop the student's awareness of those qualifications which lead to successful performance in a health-related career.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Being a Nursing Aide (Chapters 1 and 2)
   Introduction to Nursing Care
   The Nurse's Aide (pages 6-12)
   The Nurse's Guide to the Law
   Nursing Skills for Allied Health Services (pages 11-20)
   Orientation to Health Occupations

2. Filmstrip:
   Ethics for the Nurse Assistant
   Learning Arts

3. Handouts—codes of ethics from
   - American Dental Association
   - American Physical Therapy Association
   - *The Nurse's Guide to the Law*
   - *Nursing Skills for Allied Health Services*

CONTENT OUTLINE:

A. Ethics for Health Care Workers
   1. Definition
   2. Code of ethics
   3. Unethical behavior

B. Conduct of Health Care Workers
   1. On-duty conduct
   2. Off-duty conduct

C. Qualifications for Health Care Workers

SUGGESTED LEARNING ACTIVITIES:

1. Define ethics and differentiate between illegal and unethical acts.

2. Distribute copies of codes of ethics for different health care professions. After reading and discussing these codes, discuss how ethics affect all health care workers.

3. Divide class into small groups (two or three students per group) and ask students to assume roles in patient care, employee/employer, and co-worker simulations. Students should then identify ethical and unethical behavior demonstrated in each situation.

4. Using the code of ethics form and original ideas, assist the class in developing a list of qualification standards for health care workers. The instructor may find the following list of qualifications useful in guiding students as they construct their own list:
   - Emotional maturity
   - Willingness to work
   - Dependability
   - Tact and courtesy
   - Respectful attitude
   - Trustworthiness
   - Ability to accept authority and constructive criticism
   - Tolerance
   - Good judgment
   - Confidentiality
   - Objectivity

5. After developing qualification standards in the preceding activity, define the conduct expected of health care workers. Lead a class discussion on practical reasons for good conduct.

6. Invite the personnel manager from a local health care facility to speak to the class about the qualifications sought in prospective employees. Ask the speaker to discuss conduct expected of health care workers and consequences of violating standards of conduct.

7. Familiarize students with the types of information health care workers can accept and release over the telephone. Stress the following:
   - Good telephone manners
   - Procedures for accepting orders
   - Procedures for giving out patient information

8. Discuss appropriate procedures for using the intercom system on the patient unit.

9. Visit a health care facility with an intercom system and demonstrate proper mechanical use. Ask a health care worker on the patient unit to emphasize the value of the intercom system and why it should not be misused (including invasion of privacy).

ALTERNATE LEARNING ACTIVITIES:

1. Have students conduct self-evaluations using the list of qualification standards developed in class. Students should rate themselves "excellent," "good," or "in need of improvement." (See *Orientation to Health Occupations*, Learning Activity Package 9, pages 43-44.)

2. Ask students to develop a code of ethics that would apply to any health care worker.

3. Videotape students' role-playing exercises, focusing on ethical and unethical behavior. Review the videotape, allowing class members to decide how each undesirable situation could have been remedied by applying ethical standards.

SUGGESTED EVALUATION MEASURES:

1. Have students write an essay defining ethics.

2. Describe hypothetical ethical, unethical, and illegal acts and ask students to differentiate between them.

3. Have students list the qualifications expected of health care workers.

4. Assign and evaluate written reports on types of off-duty conduct that are not appropriate for health care workers.

5. Evaluate students' use of the telephone and intercom.

LEARNING ACTIVITY PACKAGE 6

CATEGORY:	Introduction to Law for the Health Care Worker
FOCUS:	Legal terminology; medical situations that can involve the health care worker in legal action
ACTIVITIES:	Lecture/class discussion/group projects/guest speaker/audio-visual presentations
OBJECTIVE:	The student will be aware of the legal implications of health careers and will be able to discuss the health care worker's legal responsibilities.
RATIONALE:	The purpose of this unit is to provide the student with a basic knowledge of the legal aspects of medicine, as well as an awareness of the health care worker's legal responsibilities.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   The National Guidance Handbook: A Guide to Vocational Education Programs
   The Nurse's Guide to the Law
   Nursing Skills for Allied Health Services
   Occupational Outlook Handbook
   The Role and Responsibilities of the Practical Nurse
2. Pamphlets:
   The Patient's Bill of Rights
   A Patient's Bill of Rights for Long-Term Care Facilities
3. Filmstrip:
   Legal Implications in Nursing
   Trainex Corporation
4. Overhead transparencies and/or handouts of various consent forms (e.g., surgical consent, authorization for the use of experimental treatment), available from local health care facilities such as hospitals, nursing homes, and dental offices

5. Practice acts for specific health fields (e.g., dental), available from the Department of Registration and Education, 216 East Adams, Springfield, Illinois 62701

6. Handout of legal terms (see page 96)

7. Professional Status Interview Form (see page 97)

CONTENT OUTLINE:

A. Types of Law
   1. Physical
   2. Moral
   3. Common
   4. Statutory
   5. Decisional

B. Types of Courts
   1. Civil
   2. Criminal
   3. Probate

C. Controls on Health Care Workers
   1. Licensing
   2. Certification
   3. Registration

D. Patients' Rights

E. Abuse of Patients' Rights
   1. Negligence
   2. Assault
   3. Battery
   4. Gross negligence
   5. Malpractice
   6. Defamation of character
      a. Slander
      b. Libel
   7. Invasion of privacy
   8. False imprisonment

F. Consent Forms
   1. Operations and administration of anesthetics (surgical consent)
   2. Emergency situations

   3. Use of experimental drugs or treatments
   4. Refusal of drugs, treatments, or other procedures
   5. Photographs
   6. Use of own electrical appliances
   7. Release of body to mortuary
   8. Autopsy permit
   9. Authorization of treatment of minor

G. Medication and the Law
   1. Harrison Narcotic Act
   2. Health care workers' responsibilities

SUGGESTED LEARNING ACTIVITIES:

1. Distribute handout of legal terms for students to research and define (see page 96).

2. Organize small-group class presentations in which students define and demonstrate one of the following through the use of a hypothetical situation:
   - Physical law
   - Moral law
   - Common law
   - Statutory law
   - Decisional law

3. Present a lecture briefly outlining the judicial system (civil court, criminal court, and probate court).

4. Lead the class in developing a list of health care workers. Then divide the class into small groups and ask each group to determine whether various health care workers on the list must be licensed, certified, or registered.

5. Show the filmstrip *Legal Implications in Nursing* and discuss key points.

6. Direct class discussion to develop students' understanding of the terms negligence, malpractice, assault and battery, defamation of character, invasion of privacy, and false imprisonment.

7. Lead class discussion on health care situations that might result in litigation and how each could have been better handled. Obtain practice acts for dental and other allied health fields to assist in this activity.

8. Show overhead transparencies and/or distribute handouts of various consent forms used in local health care facilities. Lead a class discussion on the necessity of such consent forms.

9. Divide class into small groups and ask each group to develop a list of patients' rights.

10. Present a lecture on drug control. Identify health care workers authorized to administer and dispense medications.

11. Invite a pharmacist to discuss the importance of drug control and related precautions used in hospitals, pharmacies, and nursing homes.

ALTERNATE LEARNING ACTIVITIES:

1. Have students select one health care occupation requiring licensing, certification, or registration and interview an individual actively involved in that career. (See the Interview Form on page 96.)

2. Organize a panel discussion involving class members who have been patients in a health care facility. Ask these students to discuss their experiences as patients.

SUGGESTED EVALUATION MEASURES:

1. Evaluate students' completed lists of legal terms.

2. Have students write an essay defining civil court, criminal court, and probate court and their respective functions.

3. Assign and evaluate a written report describing the differences between licensing, certification, and registration and discussing the advantages and disadvantages of each.

4. Have students list patients' rights.

5. Have students list ways in which patients' rights can be abused.

6. Have students list types of consent forms and briefly discuss their importance.

7. Assign and evaluate a written report on the importance of drug control and the responsibilities of the health care worker with regard to drug abuse.

SUGGESTED VOCABULARY LIST:

1. Assault
2. Battery
3. Certification
4. Civil court
5. Criminal court
6. False imprisonment
7. Invasion of privacy
8. Libel
9. Licensing
10. Litigation
11. Malpractice
12. Negligence
13. Probate court
14. Registration
15. Slander
16. Tort

PROFESSIONAL STATUS INTERVIEW FORM

DATE: ______________________________

INTERVIEWER'S NAME: ______________________________

Health Care Worker's Name: ______________________________

Occupation: ______________________________

Licensed? ____________ Certified? ____________ Registered? ____________

Is a license, certificate, or registration required? ____________

If not, what are the advantages of having a license, certificate, or registration?

____

____

What are the educational requirements for a license, certificate, or registration?

____

____

Is there a State Board Examination that must be taken? ____________

Can you practice in other states without submitting a special application to those states for recognition of career status? ____________

Are there any special requirements you must meet in order to renew your license, certificate, or registration? ____________

If so, what are these requirements?

____

____

LEARNING ACTIVITY PACKAGE 7

CATEGORY:	Safety Skills
FOCUS:	Safety and fire prevention in the home, school, and health care institution
ACTIVITIES:	Class discussion/individual and group projects/guest speakers/audio-visual presentations/role-playing/Extended Campus
OBJECTIVE:	The student will be able to list major causes of accidents and fires and general rules of safety and fire prevention; the student will also be able to identify appropriate procedures in case of fire and demonstrate the use of different types of fire extinguishers. Furthermore, the student will demonstrate an active interest in safety and in promoting safety consciousness in the home, school, and health care institution.
RATIONALE:	The purpose of this unit is to acquaint the student with basic safety skills applicable to all occupational areas and all aspects of life.

INSTRUCTIONAL AIDS (see pages 233-265):

1. **Texts:**
   Exploring Health Occupations
   Family Development Series: Health, Safety, and Sanitation
   Health for Life
   Modern Health
   Tune In to Health

2. **Pamphlet:**
   Safety Guide for Health Occupations Programs

3. **Films:**
   Dealing with Problem People: The Disorderly Worker
   Safety in the Chemical Laboratory
   Six Murderous Beliefs
   Your Health in the Community
   Coronet Instructional Films

4. Filmstrips:
   Cooperating with Others
      Curriculum Materials Corporation
   Working as a Paramedic
      Listening Library, Inc.
   Making Our Streets Safe
   Preventing and Controlling Fire
   Safety in the Community
   Safety in Shops and Labs
   Safety in the Water
      McGraw-Hill Book Company
   Controlling Fires
   Safe and Sure with Electricity
      Popular Science Publishing Company

5. Accident or incident report forms, available from local health care facilities such as hospitals and nursing homes

6. Handout on twelve general rules of safety (see page 105)

7. Handout on lifting and moving techniques (see page 106)

CONTENT OUTLINE:

A. Causes of Accidents
   1. Carelessness
   2. Thoughtlessness
   3. Ignorance

B. Health Care Institutions' Liability
   1. Moral
   2. Legal
   3. Financial

C. Incident Reports

D. General Rules of Safety

E. Basic Body Mechanics and Posture to Prevent Injury

F. Three Elements Necessary for Fire
   1. Heat
   2. Fuel
   3. Oxygen

G. Types of Fire
  1. Ordinary combustible
  2. Flammable liquid
  3. Electrical
  4. Combustible material

H. Major Causes of Fire
  1. Smoking and matches
  2. Misuse of electricity
  3. Defects in heating systems
  4. Spontaneous ignition
  5. Improper rubbish disposal

I. Potential Causes of Fire in Health Care Institutions
  1. Oxygen equipment
  2. Flammable liquids
  3. Anesthetic gases
  4. Flammable chemicals in laboratories
  5. Flammable liquids and chemicals in pharmacy
  6. Combustible materials in storage
  7. Cooking facilities

J. Types of Fire Extinguishers
  1. Dry chemical
  2. Carbon dioxide (CO_2)
  3. Pressurized water
  4. Soda-acid

K. Handling a Fire Emergency
  1. How to report a fire
  2. Emergency plan of home, school, or institution
    a. Exit route
    b. Location of fire alarms
    c. Location of fire extinguishers
  3. Fire emergency procedures in health care institutions
    a. Pull nearest fire alarm
    b. Notify switchboard or secretary of exact location and nature of fire
    c. Assist clients to safety
    d. Follow emergency procedures of facility
    e. Avoid panic

L. Color Codes for Health Care Hazards
  1. Red
  2. Yellow
  3. Orange
  4. Green
  5. Purple

6. Black and white
7. Blue

M. Responsibilities of Health Care Workers

SUGGESTED LEARNING ACTIVITIES:

1. Discuss why accidents happen and how accidents are the result of carelessness, thoughtlessness, and ignorance.

2. Ask students to report on personal experiences in which they were involved in accidents.

3. Assist class in developing a hazard checklist with which students may evaluate the safety of their own homes.

4. Discuss the moral, legal, and financial liability of health care institutions with regard to safety.

5. Invite an insurance company representative to speak to the class on the moral, legal, and financial responsibilities of health care institutions.

6. Ask students to consider and discuss why health care facilities have a moral obligation to promote and practice sound safety procedures.

7. Invite the inservice program director of a local health care institution to discuss incident reports, stressing:
   - Importance of reporting all injuries, however slight, to clients or workers
   - Types of incident forms and how to properly complete them

8. Lead class discussion on the importance of reporting all injuries. Distribute sample accident or incident forms and allow students to fill out forms using hypothetical injury situations.

9. Distribute handout on the twelve general rules of safety (see page 105).

10. Have students identify unsafe conditions in drawings or photographs of:
    - A frayed electrical cord
    - An unlabeled bottle among several labeled bottles

11. Distribute handout on proper lifting and moving techniques to avoid injury (see page 106).

12. Instruct students in body mechanics and good posture through the use of films, charts, and/or models.

13. Demonstrate correct body mechanics in lifting and moving, and lead class in practicing techniques.

14. Through class discussion, develop a master list of keys to fire prevention, including the three elements necessary to start a fire, major causes of fires, and other causes specifically associated with health care institutions.

15. Show film or filmstrip on types of fires and fire extinguishers.

16. Tour a health care facility and ask students to note the following:
    - Location of fire extinguishers
    - Areas where different types of fire extinguishers are located
    - Smoking regulations
    - Cleanliness of corridors and stairs
    - Congested traffic areas

    In class, have students develop posters or charts illustrating the different types of equipment noted in the facility, their location, and their use.

17. Visit a fire station or ask a member of the local fire department to visit the class to demonstrate equipment and supervise students in practicing use of the equipment.

ALTERNATE LEARNING ACTIVITIES:

1. Ask students to role-play the dangers involved in practical jokes. Discuss penalties the health care facility may invoke to prevent such horseplay.

2. Invite a speaker from industry to discuss OSHA.

3. Write the following on the chalkboard and lead class discussion on specific measures to prevent injury from each type of hazard.
    - Fires and explosions
    - Poisons, corrosives, and caustic reagents
    - Burns and scalds
    - Lacerations

- Bacterial, viral, and parasitic infections
- Animal and insect bites
- Radiation

4. Have class simulate a fire drill in a health care institution. Assign students to specific responsibilities, such as:
    - Closing doors
    - Notifying appropriate personnel
    - Running elevator
    - Directing clients to safety

5. Display floor plans of your school or a local health care facility, indicating exit routes and locations of fire alarms and fire extinguishers.

6. Ask students to develop emergency fire plans for their own homes.

7. Discuss and have students identify color codes for health hazards:
    - Red for fire alarm boxes
    - High visibility yellow for aisles to direct traffic flow
    - Alert orange
    - Safety green for first aid equipment
    - Purple to designate radiation equipment
    - Black and white for stairways, refuse cans, food dispensing equipment
    - Caution blue

SUGGESTED EVALUATION MEASURES:

1. Have students list at least nine of the twelve general rules of safety.

2. Have students list the three elements necessary to start a fire.

3. Have students list five major causes of fire.

4. Have students list the steps to follow in case of fire in a health care institution.

5. Have students list the different types of fire and corresponding types of fire extinguishers.

6. Have students list appropriate procedures to be taken when using oxygen equipment.

7. Have students demonstrate proper lifting and moving techniques. Evaluate or ask class to evaluate in terms of the following criteria:
    - Use of even motion
    - Body balance
    - Distribution of load among many muscles
    - Use of leg and arm muscles rather than back
    - Kneeling for low-level lifts and moves
    - Use of broad base

8. Have students draw a floor plan of a health care institution and indicate the location of firm alarms, fire extinguishers, and exit routes.

9. Assign and evaluate a written report on the responsibilities of health care workers to promote and practice good safety procedures.

SUGGESTED VOCABULARY LIST:

1. Anesthetic
2. Body mechanics
3. Combustible
4. Emergency
5. Flammable
6. Hazards
7. Liability

TWELVE GENERAL RULES OF SAFETY

1. Always report unsafe conditions.

2. Know and understand each particular job and responsibility.

3. Accept responsibility for removing any foreign material: water, blood, paper, flower petals, etc.

4. Walk, never run—especially in the hall and on stairs.
   - Keep to the right
   - Go single file
   - Take one step at a time
   - Use handrails

5. Watch out for swinging doors.
   - Open door slowly
   - Always use handle or pushplates

6. Remember that all practical jokes and acts of horseplay are prohibited.

7. Use equipment that is safe and in proper working order.
   - Do not use defective or faulty equipment
   - Check equipment to make sure it is in proper working order
   - Report all defective equipment

8. Perform only those procedures for which you have been properly and adequately trained.

9. Report all incidents and injuries, however slight.

10. Wear proper, acceptable clothing for your particular job.

11. Use proper body mechanics to prevent injury when stooping, lifting, pulling, or reaching.

12. Know the health care institution's fire and disaster plans.
    - Location and use of nearest fire alarm

LIFTING AND MOVING TECHNIQUES

STOOPING

1. Stand close to object.
2. Place feet shoulders' width apart, with one foot in front of the other for firm footing.
3. Bend your hips and knees, lower your body, keep your back straight, and bring your hands down to the object.

CARRYING

1. Keep your back as straight as possible.
2. Keep weight of load close to the body and centered over your hips.
3. Counterbalance your load by shifting part of your body in the opposite direction from the load to keep it in balance.
4. Put your load down by bending the hips and knees, keeping your back straight and the load close to your body.
5. If the load is too heavy—GET HELP.
6. If two or more people are to carry the load, assign one person as the leader so he/she can give the commands.

LIFTING

1. Check to see if you can easily pull load toward your body. If not, load is too heavy for you—GET HELP.
2. Grasp load firmly and close to the center; get ready to lift.
3. Lift by pushing upward with your legs. Straighten your back to an upright position.
4. Keep the load close to you while lifting.
5. Do not twist your body.
6. To change direction while lifting, shift your feet in the direction in which you want to go.

PUSHING

1. Stand close to the object to be moved.
2. Crouch down with your feet apart.
3. Bend your elbows and put your hands on the load at chest level.
4. Lean forward with chest or shoulder against the object. DO NOT push with your arms or shoulders.
5. Keep your back straight. Crouch and push with your legs.

PULLING

1. Place your feet apart, one foot in back of the other, keeping close to the object to be moved. Allow room so that the forward foot will not be injured.
2. Grasp object firmly, close to its center of gravity.
3. Crouch; lean away from the object.
4. Pull by straightening your legs. Keep your back straight.
5. Walk backward with crouching strides, so that the legs do all the work.

REACHING

1. Use a safe footstool whenever possible.
2. Stand close to object.
3. Place your feet wide apart, one foot in front of the other, so that you have freedom of movement.
4. Maintain good body alignment. Move close to object. Do not reach to the point of straining.
5. When reaching for an object which is above your head, grip it with your palms up and lower it. Keep it close to your body on the way down.

LEARNING ACTIVITY PACKAGE 8

CATEGORY: Nutrition and Special Dietary Needs

FOCUS: The role of good nutrition in the maintenance of health; introduction to dietary treatment of disease

ACTIVITIES: Lecture/class discussion/individual and group projects/audio-visual presentations/guest speakers/Extended Campus

OBJECTIVE: The student will be able to list the Four Basic Food Groups and sources of essential nutrients. The student will also be able to discuss common diseases associated with special dietary needs and will be aware of health careers related to nutrition.

RATIONALE: The purpose of this unit is to acquaint the student with basic facts about nutrition and special dietary needs and to provide the student with information about related health careers.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   The Complete Medical Guide
   Health and Growth
   Human Physiology
   Modern Health
   Textbook of Physiology
   Tune In to Health

2. Films:
   Balance Your Diet for Health and Appearance
   Exercise, Nutrition, and the Diet
      Coronet Instructional Films
   Food for Life
      Dairy Council of California
   Food and Nutrition
   Fundamentals of Diet
   Understanding Vitamins
      Encyclopedia Britannica Educational Corporation

Good Food, Good Health, Good Looks
Toward the Victory of Health
 Modern Talking Picture Service

3. Filmstrips:
 Disease and Diet
  Creative Education Inc.
 Biochemistry of Enzyme Action
 Biochemistry of Vitamin Action
 The Nutrients in Food
 Your Food and Digestion
  Popular Science Publishing Company

4. Cassettes:
 Nutrition and Health (3 cassettes)
 Weight Control
  Educational Activities, Inc.
 Dietetic Technician
 Dietician
 Nutritionist
  Eyegate House, Inc.

5. Overhead transparency and/or handout on the Four Basic Food Groups

6. Height and weight charts

7. Calorie charts

8. Microscopic slides of causative agents of food poisoning

9. Additional Information Resources:
 - American Dietetic Association
 - Metropolitan Life Insurance Company
 - National Dairy Council

CONTENT OUTLINE:

A. Essential Nutrients
 1. Nutrients grouped into categories
 2. Nutrient sources

B. Metabolic Processes

C. Basal Metabolism

D. Nutritional Requirements

E. Dietary Treatment of Disease

F. Health Careers Related to Nutrition

SUGGESTED LEARNING ACTIVITIES:

1. Show overhead transparency and/or distribute handout on the Four Basic Food Groups.

2. Have students make posters demonstrating the Four Basic Food Groups and their functions, using pictures of foods included in each group.

3. Provide students with height, weight, and calorie charts. Have students use these charts to determine their ideal weight and to calculate their daily calorie requirements based on calories per pound of body weight.

4. Have students keep a record of their food and fluid intake for three consecutive days. At the end of the third day, ask students to examine and determine the value of their diets, using the Four Basic Food Groups and calorie charts.

5. Have students listen to cassette on *Weight Control* by Jean Mayer. After playing the cassette, lead class discussion on proper diet and weight control.

6. Ask students to consider and discuss ways in which to improve their eating habits, including the following factors:
   - When they eat and how often
   - What they eat compared to basic essentials
   - Where they eat and under what circumstances
   - How much they eat compared to normal intake for individuals of their age and height
   - What, if any, changes should be made in their eating habits
   - How they plan to make appropriate changes

7. Discuss how proper nutrition maintains health and prevents illness.

8. Discuss the dangers of snack foods to good nutrition.

9. Have students list ways in which parents might disguise protein foods, such as eggs and milk, to encourage children to eat them.

10. Have students compile a list of foods rich in iron and discuss ways of supplying an adequate amount of iron to the diet of an adult who does not like liver.

11. Ask a school nurse or dietician to speak to the class about the importance of special diets in treating disease and the effects of dietary errors in patient care, such as giving a diabetic a regular diet or giving a cardiac patient a high sodium diet.

12. Have students prepare special diet menus (e.g., low sodium diet, low residue diet).

13. Discuss illnesses which can be caused by consumption of unsanitary food.

14. Have students prepare oral or written reports on diseases than can be carried on foods, including mode and agent of transmission and symptoms.

15. Show students microscopic slides of some of the causative agents of food poisoning.

16. Discuss the importance of water and purification methods.

17. In class, cook four ounces of lima beans or a similar vegetable (fresh or frozen) in soft water; cook another four ounces of the same vegetable in hard water. Have students check vegetables for toughness, texture, color, and taste. Lead class discussion on which sample is more palatable and which has greater nutritional value.

18. Discuss health careers related to nutrition and dietary treatment of disease.

ALTERNATE LEARNING ACTIVITIES:

1. Invite clergy from various faiths (Roman Catholicism, Judaism, Greek Orthodox Church) to discuss the dietary restrictions of their faith and effects on patients' dietary treatment.

2. Arrange a field trip to the dietary department of a local health care facility. Ask the dietician to discuss therapeutic diets, including how they differ in variety, consistency, energy value, etc. Observe food preparation, service, and clean-up.

3. Invite a dietician, dairy council representative, or similar worker in the field of nutrition to speak to the class.

4. Ask students to research and report on the history of vitamins from 1882 to the present.

5. Conduct a laboratory experiment to demonstrate food spoilage. Place a small piece of bread in each of two petri dishes. Place a few drops of water on one piece and cover. Leave the second petri dish uncovered. Observe for a week.

6. Arrange a field trip to a local supermarket. Have students identify good and poor "buys" in fresh meats, fresh fruits and vegetables, frozen foods, canned foods, dried foods, dairy foods, beverages, cereals, and snacks. Students should base their judgments on unit price, package size, weight, and nutritional value. Follow up this field trip with a discussion on purchasing nutritious food economically.

7. Have students select an advertisement for food or a food supplement from any source and determine whether the advertised product provides the nourishment indicated. Is it necessary to good health? Is it an economical source of the nutrients it provides?

SUGGESTED EVALUATION MEASURES:

1. Assign and evaluate a written report on a health career in the area of nutrition and special dietary needs, including:
   - Job description
   - Special preparation and educational requirements
   - Job opportunities
   - Approximate salary

2. Distribute copies of the Suggested Vocabulary List and ask students to submit written definitions for evaluation.

3. Test students on information presented through lectures, guest speakers, audio-visual materials, and field trips.

4. Evaluate student projects and reports.

5. Evaluate contributions to class discussion.

SUGGESTED VOCABULARY LIST:

1. Additives
2. Calorie
3. Carbohydrates
4. Cellulose
5. Enzymes
6. Fats
7. Minerals
8. Nourishment
9. Nutrient
10. Nutrition
11. Prophylactic
12. Proteins
13. Therapeutic
14. Vitamins

LEARNING ACTIVITY PACKAGE 9

CATEGORY: Body Mechanics

FOCUS: Good posture and body mechanics for the health care worker; maintaining patients' range of motion; proper techniques for moving, positioning, and transporting patients

ACTIVITIES: Lecture/demonstrations/class discussion/individual and group projects/Extended Campus

OBJECTIVE: The student will be able to demonstrate good posture when walking, sitting, and lying down, and will be able to discuss why good posture is important. The student will also be able to demonstrate good body mechanics for moving and positioning patients, will be able to transport patients in wheelchairs and on stretchers, and will be able to assist patients using crutches or walkers.

RATIONALE: The purpose of this unit is to introduce principles of good posture and body mechanics when walking, sitting, moving or lifting heavy objects, and positioning patients. The unit also introduces the student to the concept of proper body alignment for the patient lying in bed, sitting, or standing, and teaches the student how to maintain the patient's optimum range of motion.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   The Nurse's Aide (pages 216-229, 266, 269, 391-392)
   Nursing Skills for Allied Health Services
   Winter's Protective Body Mechanics: A Manual for Nurses
2. Handout on rules for good posture (see page 119)
3. Overhead transparency diagramming the relationship between base of support, line of gravity, and center of gravity
4. Wheelchair or chair with arms
5. Hospital bed

6. Blocks to demonstrate base of support and line of gravity (suggested sizes: 3" x 4" x 12" and 1" x 3" x 10")

CONTENT OUTLINE:

A. Base of Support
    1. Stability
    2. Instability

B. Posture
    1. Good posture
    2. Poor posture

C. Body Mechanics
    1. Reaching
    2. Stooping
    3. Lifting heavy objects
    4. Moving heavy objects

D. Positioning Patients
    1. Back-lying position
    2. Side-lying position
    3. Prone position
    4. Semi-sitting position
    5. Fowler's position

E. Moving Patients
    1. In bed
    2. Into chair
    3. Onto stretcher
    4. Crutches
    5. Walker

F. Limitations of Body Movement
    1. Muscle atrophy
    2. Joint contractures
    3. Metabolic disturbances
    4. Sphincter disturbances
    5. Circulatory disturbances
    6. Psychological deterioration

G. Range of Motion of Joints
    1. Passive
    2. Active

SUGGESTED LEARNING ACTIVITIES:

1. Present lecture on the base of support and the effect of the line of gravity on stability. Use blocks of various sizes to demonstrate how the size of the base of support affects stability.

2. Use an overhead transparency to demonstrate to students how the line of gravity determines the center of gravity.

3. Have a student demonstrate to the class what happens when the center of gravity is not over the base. Ask the student to stand with his/her feet close together and lean forward. The student will have to increase the base of support by moving one foot to prevent falling; muscles must work harder to maintain position.

4. Demonstrate good posture and distribute handout on rules for good posture (see page 119).

5. Discuss how poor posture affects the body.
   - Causes unnecessary fatigue
   - Causes slouched appearance
   - Slows mental processes
   - Increases chance of injury to muscle groups
   - Impairs circulation and respiration

6. Divide class into small groups to practice good posture while standing and sitting. Alert students to check their posture and their classmates' posture throughout the day.

7. Discuss the importance of good body mechanics to the health care worker and the patient. Include rules for good body mechanics (see pages 106-107) and explain how these rules preserve energy and prevent injury.

8. Discuss and demonstrate good body mechanics for the health care worker when:
   - Reaching
   - Stooping
   - Lifting heavy objects
   - Moving heavy objects

9. Provide time for students to practice good body mechanics; include reaching, stooping, lifting heavy objects, and moving heavy objects.

10. Discuss good body alignment for the patient lying in bed and proper body mechanics for the health care worker when positioning the patient.

11. Discuss and demonstrate proper positioning of patients as follows:
    - Back lying position
    - Side-lying position
    - Prone position
    - Semi-sitting position
    - Fowler's position

12. Ask students to work in teams positioning each other in proper alignment, using good body mechanics.

13. Discuss and demonstrate proper body mechanics for the health care worker and correct alignment for the patient when:
    - Moving patient in bed without a turning sheet
    - Moving patient in bed with a turning sheet
    - Moving patient from bed into a wheelchair and back to bed
    - Moving patient from bed into a chair and back to bed
    - Moving patient from bed onto a stretcher and back to bed
    - Helping patient walk with crutches or walker

14. Ask students to work in teams practicing the above principles, or use the Extended Campus by visiting a nursing home and allowing students to help move patients.

15. Present lecture on the effects of limitation of movement on the body and how to prevent the following problems:
    - Muscle atrophy
    - Joint contractures
    - Metabolic disturbances
        - Osteoporosis
        - Urinary tract stones
    - Sphincter disturbances
        - Urinary incontinence
        - Constipation
    - Circulatory disturbances
        - Decubitus ulcers
        - Orthostatic hypotension
        - Hypostatic pneumonia
        - Venous thrombosis
    - Psychological deterioration

16. Discuss the rules to follow when transporting patients by wheelchair and stretcher; include precautions necessary when using a wheelchair outdoors. On the chalkboard, make a list of rules to remember when using wheelchairs and stretchers.

17. Visit a physical therapy department to observe methods used to help patients regain movement or maintain present movement.

ALTERNATE LEARNING ACTIVITIES:

1. Ask students to prepare a written report on the advantages of good posture and the effects of poor posture when sitting, standing, and walking.

2. Ask students to prepare a written report on one effect of limited movement, including cause, treatment, and prevention.

3. Divide class into small groups and allow each group to study ways in which people with movement limitations may be kept active. For example:
   - Visit a nursing home activity department
   - Visit an occupational or recreational therapy department
   - Visit a senior citizens' center
   - Visit any other local agency or facility that provides activities for people with problems

SUGGESTED EVALUATION MEASURES:

1. Ask students to define:
   - Base of support
   - Body mechanics

2. Have students list rules of good posture and effects of poor posture.

3. Have students demonstrate good body mechanics when:
   - Stooping
   - Reaching
   - Lifting heavy objects
   - Moving heavy objects

4. Have students demonstrate correct procedures for positioning the patient in the:
   - Back-lying position
   - Side-lying position
   - Prone position
   - Semi-sitting position
   - Fowler's position

5. Have students demonstrate correct procedures for moving the patient:
   - In bed
   - Into chair

- Onto stretcher
- On crutches
- With walker

6. Have students demonstrate correct procedures for turning the patient in bed:
   - Without a turning sheet
   - With a turning sheet

7. Have students list rules to follow when transporting the patient by wheelchair or stretcher.

SUGGESTED VOCABULARY LIST:

1. Abduction
2. Active exercises
3. Adduction
4. Body alignment
5. Body mechanics
6. Contracture
7. Dorsal position
8. Extension
9. Flexion
10. Hyperextension
11. Lateral position
12. Passive exercises
13. Posture
14. Prone position
15. Rotation
16. Supine position

RULES FOR GOOD POSTURE:

1. Maintain a good base of support.

2. Distribute weight evenly on both feet.

3. Keep knees slightly flexed.

4. Tuck in buttocks.

5. Keep abdomen up and in.

6. Raise ribcage.

7. Keep head erect and in line with vertebral column.

LEARNING ACTIVITY PACKAGE 10

CATEGORY: The Health Care Team and the Health Care Worker's Role and Responsibilities

FOCUS: How health care facilities and agencies work as a team; the health care worker's role in observing the patient; reporting and recording observations; taking vital signs

ACTIVITIES: Lecture/class discussion/demonstrations/group activities/audio-visual presentations/Extended Campus

OBJECTIVE: The student will be able to discuss ways in which health care facilities and agencies work together to provide the optimum level of health care. The student will also be able to list important considerations when observing the patient and proper methods of reporting and recording observations. The student will be able to take vital signs and will be able to list the normal and abnormal ranges of vital signs.

RATIONALE: The purpose of this unit is to develop the student's awareness of the team efforts of health care facilities and agencies to meet patient needs. The unit will also familiarize the student with the health care worker's responsibilities in observing the patient and monitoring vital signs. The student will have the opportunity to take vital signs, observe patients, and report and record observations.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Being a Nursing Aide (Chapters 9 and 10)
   Fundamentals of Nursing
   The Nurse's Aide (pages 133-139, 146-156)
   Principles and Practices of Nursing Care

2. Filmstrips:
   Observing the Patient
      Career Development Corporation

How to Take Your Patient's Temperature (TLC-1)
How to Take Your Patient's Pulse and Respiration (TLC-2)
How to Take Your Patient's Blood Pressure—I (TLC-3)
How to Take Your Patient's Blood Pressure—II (TLC-4)
Techniques Learning Council

3. Overhead transparency listing health care facilities and agencies
4. Overhead transparency displaying flowchart of a specific patient situation and ways in which various local facilities and agencies would work together to meet the patient's needs
5. Overhead transparencies presenting definitions of subjective and objective symptoms and lists of examples (see Suggested Learning Activity 7)
6. Overhead transparency or wall chart of the human body (front and back views)
7. Overhead transparency and handout of incident report form obtained from a local health care facility
8. Overhead transparency and handout of graphic sheet obtained from a local health care facility
9. Patient's chart obtained from a local health care facility
10. Handout of vocabulary terms (see page 129)
11. Thermometers, stethoscope
12. Calibrated container, IV bottle, chart of liquid measurements

CONTENT OUTLINE:

A. Team Efforts of Health Care Facilities and Agencies

B. Observing the Patient
   1. Ways to observe
   2. Types of observations
   3. Reasons to observe

C. Reporting
   1. Subjective symptoms
      a. Definition

b. Importance
c. Significant symptoms
    (1) Itching with blood transfusion
    (2) Leg pains after surgery

2. Objective symptoms
    a. Definition
    b. Importance
    c. Significant symptoms
        (1) Flushed
        (2) Cyanosis
3. Reporting methods
4. Human body terminology
    a. Parts of body
    b. Locations
    c. Types of pain

D. Recording
    1. Charts
    2. Worksheets
    3. Graphic sheets
    4. Incident reports

E. Intake and Output
    1. Intake
        a. Oral
        b. Parenteral
    2. Output
        a. Urinary
        b. Body drainage
    3. Metric measurements

F. Vital Signs
    1. Temperature
        a. Physiology
        b. Range
        c. Terminology and abbreviations
        d. Thermometers
        e. Methods for obtaining
        f. Recording
    2. Pulse
        a. Physiology
        b. Range
        c. Terminology and abbreviations
        d. Methods for obtaining
        e. Recording

3. Respiration
    a. Range
    b. Terminology and abbreviations
    c. Methods for obtaining
    d. Recording
4. Blood pressure
    a. Physiology
    b. Range
    c. Terminology and abbreviations
    d. Equipment used
    e. Methods for obtaining
    f. Recording

SUGGESTED LEARNING ACTIVITIES:

1. Distribute handout of vocabulary terms for students to define by the end of the unit (see page 129).

2. Show an overhead transparency listing health care facilities and agencies and their roles in maintaining the optimum level of client health care.

3. Show an overhead transparency displaying a flowchart of a specific patient situation. Discuss how various local health care facilities and agencies would work together to meet the patient's needs.

4. Visit two or three local health care agencies. Ask staff members at each agency to explain its function and how it works with other agencies to meet patients' needs.

5. Present lecture designed to develop students' understanding of the major importance of observation for all health care workers. Be sure to discuss why health care workers not directly involved in patient care must also observe. Explain how to observe (by seeing, hearing, smelling, and feeling).

6. Lead class discussion on the types of observations the health care worker must make:
    - Patient's mental status
        - Oriented
        - Disoriented
        - Unresponsive
        - Incoherent
        - Unconscious

- Personal appearance
  - Hygiene
  - Clothing
  - Oral hygiene
  - Nourishment
  - Weight
  - Skin
- Physical limitations
  - Vision
  - Hearing
  - Missing limbs
  - Any other part of body missing
- Any appearance of previous major surgery

7. Lead class discussion on why it is important to make observations of the patient's mental and physical status, including how these observations will affect the health care worker's approach to the patient. Show filmstrip *Observing the Patient*.

8. Using overhead transparencies, define subjective and objective symptoms and discuss listed examples. Add to the lists through class discussion. Introduce medical terms when possible.
   - Subjective symptoms
     - Nausea
     - Pain
     - Chills
     - Vertigo
   - Objective symptoms
     - Rash
     - Edema
     - Cyanosis
     - Flushed complexion
     - Emesis

9. Present lecture on reporting observations, including:
   - Differentiation between subjective and objective reporting
   - Which observations are reportable (emphasize that the entry-level health care worker should report all changes noted and any unusual observations made, especially until experienced in observing)
   - Proper reporting channels: nurse's aide to head nurse, medical assistant to doctor, laboratory technician to supervisor or to head nurse

10. Demonstrate the importance of reporting by discussing symptoms which are extremely significant:
    - Insulin shock symptoms—weakness, vertigo, restlessness, profuse sweating, pallor
    - Acidosis symptoms—increased weakness, insatiable thirst, dry skin
    - Itching during blood transfusion
    - Complaints of leg pain several days after surgery

11. Discuss hypothetical patient care situations and ask students to decide what should be reported.

12. Using an overhead transparency or a wall chart of the human body, discuss anatomical terms used in reporting and recording patient observations. (See Learning Activity Package 16.) Stress the following areas of the body:
    - Head
        - Occipital region
        - Temporal region
        - Frontal region
        - Cranial region
    - Cervical region (neck)
    - Thoracic region (chest)
    - Abdominal region (describe different quadrants)
    - Extremities

    Stress the following terms:
    - Lateral
    - Prone
    - Superior
    - Inferior
    - Dorsal
    - Right and left
    - Supine
    - Medial
    - Distal
    - Proximal
    - Types of pain
        - Dull, sharp
        - Continuous, intermittent

13. Present and discuss a patient chart obtained from a local health care facility.

14. Through class discussion, develop a list of health care workers and their respective recording responsibilities:

- Registered nurse—chart recording
- Licensed practical nurse—chart recording
- Nurse's aide—worksheet recording
- Ward clerk—graphic sheet recording
- Physical therapist—chart recording
- Medical assistant—records on patient chart
- Inhalation therapist—recording treatment and response

15. Show an overhead transparency and distribute handouts of a graphic sheet obtained from a local health care facility. Assist students in filling out graphic sheets with several different TPR's and B/P's. Students should record TPR's properly and indicate which should be reported and why.

16. Show an overhead transparency of an incident report form obtained from a local health care facility. Discuss, including:
    - When an incident report should be completed
    - Why incident reports are important
    - Who is responsible for completing incident reports
    - How to report incidents
    - How to complete incident report forms

17. Instruct students on the importance of recording intake and output. Display a calibrated container for measuring output, an IV bottle for parenteral measurement, and a chart of liquid measurements.

18. Show filmstrip *How to Take Your Patient's Temperature* and discuss key points:
    - Normal range
    - Abnormal range
    - Terminology and abbreviations
        - Pyrexia
        - Antipyretic
        - Flushed complexion
        - Chills
        - Crisis
        - Temperature (T)
        - Oral (O or OS)
        - Rectal (R)
        - Axillary (A)

19. Discuss the use and care of thermometers, both oral and rectal. Explain methods of taking and recording the patient's oral, rectal, and axillary temperature. Distribute thermometers and allow students to practice taking each other's oral temperature.

20. Show filmstrip *How to Take Your Patient's Pulse and Respiration.* Discuss and demonstrate methods for taking and recording pulse, including:
    - Normal range
    - Abnormal range
    - Terminology and abbreviations
        - Irregular
        - Intermittent
        - Tachycardia
        - Bradycardia
        - Pulse (P)

    Discuss and demonstrate methods for taking and recording respiration, including:
    - Normal range
    - Abnormal range
    - Terminology and abbreviations
        - Shallow
        - Deep
        - Cheyne stoke
        - Orthopnea
        - Dyspnea
        - Stertorous
        - Apnea
        - Respiration (R)

21. Have students practice taking each other's pulse and respiration.

22. Show filmstrips *How to Take Your Patient's Blood Pressure—I* and *How to Take Your Patient's Blood Pressure—II.* Discuss key points:
    - Normal range
    - Abnormal range
    - Terminology and abbreviations

23. Demonstrate the use and care of blood pressure equipment. Explain methods of taking and recording the patient's blood pressure and allow students to practice taking each other's blood pressure.

24. Have students practice the entire TPR and B/P procedure.

25. Arrange an Extended Campus experience in a nursing home, allowing students to take vital signs of patients. Have students observe and record observations on appropriate worksheets. Observations should be reported to the instructor.

ALTERNATE LEARNING ACTIVITIES:

1. Lead class discussion designed to develop students' understanding of various ways in which different health care facilities and agencies work together to meet patient needs. Hypothetical situations might include an elderly patient going home after a stroke, bi-county Meals on Wheels, paraplegia, or a retarded child.
2. Arrange for the class to visit a local physical therapy department. Ask the physical therapist to explain how he/she uses the decision-making process to develop a patient's therapy.
3. Ask each student to list four examples of objective reporting and four examples of subjective reporting.
4. Have students complete an incident report on a hypothetical injury.

SUGGESTED EVALUATION MEASURES:

1. Evaluate students' completed vocabulary lists.
2. Evaluate students' Extended Campus reports.
3. Assign and evaluate a written report on:
    - How to observe patients
    - When to observe patients
    - Why every health care worker must observe patients
4. Have students list observations which should be made in assessing a patient.
5. Ask students to differentiate between subjective and objective symptoms.
6. Have students describe the proper method of reporting observations.
7. Have students outline reasons why incident reports must be submitted and who is responsible for reporting incidents.
8. Present students with a hypothetical injury situation and have them develop a good description of the accident.
9. Have students list types of intake and output that must be recorded.

10. Have students demonstrate methods of taking and recording patients' temperature, pulse, respiration, and blood pressure.

11. Have students describe the normal range for temperature, pulse, respiration, and blood pressure.

12. Have students describe the abnormal range for temperature, pulse, respiration, and blood pressure and when it should be reported.

13. Have students list ways in which a patient's temperature may be taken.

14. Have students list areas where a patient's pulse can be felt.

SUGGESTED VOCABULARY LIST:

1. Acidosis
2. Antipyretic
3. Apnea
4. Bradycardia
5. Crisis
6. Cyanosis
7. Disoriented
8. Dorsal
9. Dyspnea
10. Edema
11. Emesis
12. Incoherent
13. Lateral
14. Nausea
15. Objective reporting
16. Objective symptoms
17. Oriented
18. Prone
19. Pyrexia
20. Subjective reporting
21. Subjective symptoms
22. Supine
23. Tachycardia
24. Unconscious
25. Unresponsive
26. Vertigo

LEARNING ACTIVITY PACKAGE 11

CATEGORY: Physical Examinations and Tests

FOCUS: Procedures and equipment used during physical examinations, specimen collection, and special tests

ACTIVITIES: Lecture/class discussion/group activities/demonstrations/role-playing/audio-visual presentations/Extended Campus

OBJECTIVE: The student will be able to assist during a physical examination and identify the equipment used. The student will also be able to list procedures and equipment necessary for the collection of various specimens and to discuss special tests which may be required.

RATIONALE: The purpose of this unit is to familiarize the student with the health care worker's responsibilities during a physical examination. The student will be introduced to the procedures and equipment used during physical examinations and special tests and will have the opportunity to work with the necessary equipment.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Being a Nursing Aide (Chapter 11)
   The Nurse's Aide (pages 139-142, 220-223, 235-241)

2. Overhead Transparency:
   Basic Nursing I
   Minnesota Mining and Manufacturing Company

3. Overhead transparency and/or handout of a medical history sheet, available from local health care facilities

4. Handout of suggested guidelines for assisting with a physical examination (see page 136)

5. Physical examination equipment:
   - Balance and spring scale
   - Height-measuring device

- Metric chart
- Draping sheets
- Hospital bed
- Stethoscope/sphygmomanometer
- Otoscope/ophthalmoscope
- Flashlight/headlight
- Gloves (plastic or rubber)/lubricant/tissues
- Percussion hammer
- Vaginal speculum
- Nasal speculum
- Tongue depressor/emesis basin

6. Specimen collection equipment:
   - Urine specimen container
   - Clean-catch urine specimen kit
   - 24° urine specimen equipment (jug, funnel, calibrated pitcher, bedpan/bedpan cover or urinal)
   - Fecal specimen cup
   - Sputum cup
   - Pap smear trays/applicator
   - Clinitest tablets/tes-tape/acetest tablets/ketostix strips
   - Test tube/eyedropper
   - Urine drainage container and tubing

CONTENT OUTLINE:

A. Physical Examinations
   1. Preventive examination
   2. Diagnostic examination
   3. Follow-up examination

B. Physical Examination Techniques
   1. Medical history
   2. Observation
   3. Palpation
   4. Percussion
   5. Auscultation

C. Alleviating Anxieties
   1. Anxieties of patient
   2. Reassurance by health care worker

D. Health Care Worker's Responsibilities
   1. Height and weight
   2. Vital signs

   3. Positioning and draping patients
   4. Identification and care of equipment

E. Specimen Collection
   1. Labeling specimens
   2. Urine specimens
      a. Routine
      b. Clean-catch
      c. 24°
      d. Catheterized
      e. Clinitest, acetone, hemastix
   3. Fecal specimens
      a. Routine
      b. Hemacult
   4. Sputum specimens
   5. Throat cultures
   6. Pap smears
   7. Blood specimens

SUGGESTED LEARNING ACTIVITIES:

1. Present lecture and lead related class discussion on the three types of physical examinations. Encourage students to relate personal experiences with physical examinations, including diagnostic examinations such as X-rays.

2. Distribute medical history sheets and ask students to take one another's medical histories after class discussion.

3. Organize small-group activities during which each group establishes a list of observations which should be made during a physical examination. (See Learning Activity Package 10.)

4. Demonstrate palpation, percussion, and auscultation.

5. Lead class discussion on the patient's anxieties before, during, and after examination, emphasizing the health care worker's role in reassuring the patient.

6. Have students act out the roles of health care worker and patient, simulating patient fears and devising ways to help the patient cope with these fears.

7. Demonstrate the proper use and care of the balance and spring scale and proper procedures for measuring the patient's height and weight using the metric system.

8. Allow students to practice height and weight measuring using the metric system.

9. Discuss procedures for taking and recording vital signs. (See Learning Activity Package 10.)

10. Using an overhead transparency, demonstrate patient positioning and draping procedures. Include the following positions:
    - Erect (sitting)
    - Anatomical (standing)
    - Horizontal-recumbent (supine)
    - Sims's
    - Fowler's
    - Knee-chest
    - Dorsal-lithotomy
    - Prone

11. In small groups, allow students to practice positioning and draping procedures.

12. Using overhead transparencies and/or equipment available, acquaint students with the equipment that may be needed during a physical examination, including the proper care of instruments. Stress the following equipment:
    - Stethoscope/sphygmomanometer
    - Otoscope/ophthalmoscope
    - Flashlight/headlight
    - Rubber gloves
    - Percussion hammer
    - Lubricant/tissues
    - Vaginal speculum
    - Nasal speculum
    - Tongue depressor/emesis basin

13. Give students the opportunity to handle the equipment.

14. Distribute handouts on suggested guidelines for assisting with a physical examination (see page 136) and lead a class discussion on these guidelines.

15. Visit a doctor's office, nursing home, or hospital to tour examination rooms and view equipment unavailable in the classroom.

16. Using overhead transparencies and available equipment, instruct students on the proper procedures for collecting and labeling specimens, or the proper procedures for assisting with collection. Demonstrate procedures for clinitest, acetone test, and hemastix.

17. Visit a medical laboratory to observe the machines and techniques used to run laboratory tests on specimens.

ALTERNATE LEARNING ACTIVITIES:

1. Organize students into small groups. Distribute medical history sheets and ask each group to prepare a class presentation on the importance of the questions asked on the history.

2. Have students prepare written or oral reports on ways to alleviate the anxiety of the patient during a physical examination.

3. Have students assume the roles of a doctor, a client, and various health care workers during a physical examination.

SUGGESTED EVALUATION MEASURES:

1. Distribute copies of the Suggested Vocabulary List and ask students to submit written definitions for evaluation.

2. Have students complete medical history forms on each other.

3. Have students demonstrate:
    - Measuring height
    - Measuring weight using a balance scale
    - Recording in metric measurements

4. Have students list the equipment necessary for most physical examinations.

5. Assign and evaluate a written report on the procedures to follow in preparing the client for a physical examination.

6. Have students prepare a label to attach to a specimen.

7. Have students list equipment needed to collect:
   - Routine urine specimen
   - Clean-catch urine specimen
   - 24° urine specimen
   - Pap smear
   - Fecal specimen

8. Have students demonstrate positioning and draping patients in:
   - Sims's position
   - Horizontal-recumbent position
   - Dorsal-lithotomy position
   - Knee-chest position

SUGGESTED VOCABULARY LIST:

1. Acetone
2. Auscultation
3. Barium enema
4. Cholangiogram
5. Clean-catch urine specimen
6. Clinitest
7. Diagnostic examination
8. Dorsal-lithotomy position
9. Electrocardiogram
10. Electroencephalogram
11. Follow-up examination
12. Horizontal-recumbent position
13. Intravenous pyelogram
14. Knee-chest position
15. Observation
16. Palpation
17. Percussion
18. Preventive examination
19. Sims's position
20. Speculum

SUGGESTED GUIDELINES FOR ASSISTING WITH PHYSICAL EXAMINATIONS

1. Introduce yourself to the patient.
2. Call the patient by name and check his/her identification band if the patient has one.
3. Clearly explain to the patient (if he/she is not already aware of it) that the doctor is going to perform a physical examination.
4. Check the room for sufficient lighting.
5. Check the room for comfortable room temperature (approximately 80°). Check for drafts and eliminate them if possible.
6. Assemble all necessary equipment and arrange equipment for the doctor's convenience during the physical examination.
7. Ask the patient to empty his/her bladder, saving the urine specimen if needed.
8. Wash your hands.
9. Take the patient's vital signs, height, and weight if indicated.
10. Inform the patient if clothing should be removed; position and drape the patient properly. Remember to protect the patient's privacy by closing doors and using screens.
11. Inform the doctor when the patient is ready.
12. Stay with the patient during the physical examination unless otherwise instructed. Assist the doctor when necessary.
13. After the examination has been completed, give the patient any assistance needed in dressing.
14. Clean the area and equipment used for the examination.

LEARNING ACTIVITY PACKAGE 12

CATEGORY: Aseptic Technique

FOCUS: Principles and procedures of medical and surgical asepsis

ACTIVITIES: Lecture/class discussion/demonstrations/guest speakers/audio-visual presentations/Extended Campus

OBJECTIVE: The student will be able to demonstrate and discuss proper techniques for accomplishing and maintaining medical and surgical asepsis. The student will also be able to explain the importance of asepsis in the health care setting.

RATIONALE: The purpose of this unit is to acquaint the student with the principles of medical and surgical asepsis. This unit will also develop the student's awareness of the importance of maintaining asepsis and the related responsibilities of the health care worker.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Being a Nursing Aide (Chapter 3)
   Fundamentals of Nursing
   An Introduction to the Study of Disease
   The Nurse's Aide (pages 31-42)
   Principles and Practices of Nursing Care

2. Filmstrips:
   Health and Safety: Maintaining a Clean Environment
      Career Development Corporation
   Disinfection and Sterilization
      McGraw-Hill Book Company, Blakiston Division
   Medical Asepsis
   Sterile Technique and Dressing Change
      Trainex Corporation

3. Handout of handwashing procedures (see page 142)

4. Handout of vocabulary terms (see page 141)

CONTENT OUTLINE:

A. Importance of Asepsis in Clinical Situations

B. Medical Asepsis
   1. Principles
      a. Preventing contamination
      b. Proper handwashing procedures
      c. Good grooming
      d. Changing bed linens
   2. Methods
      a. Housecleaning
      b. Sterilization

C. Surgical Asepsis
   1. Principles
      a. Preventing contamination
      b. Special procedures
   2. Methods
      a. Dry heat
      b. Autoclave
      c. Boiling
      d. Disinfection

D. Transmission of Pathogens
   1. Direct contact
   2. Indirect contact
   3. Airborne
   4. Food
   5. Insects

E. Helpful Microorganisms
   1. Purification of sewage and water
   2. Food processing
   3. Air
   4. The human body

SUGGESTED LEARNING ACTIVITIES:

1. Distribute handout of vocabulary terms for students to define by the end of the unit (see page 141).

2. Introduce the concept of asepsis, including unfamiliar terms, and explain its importance in hospitals, clinics, laboratories, nursing homes, doctors' and dental offices, and other health care facilities.

3. Discuss microorganisms as they relate to asepsis. (See Learning Activity Package 13.)

4. Lead class discussion on each mode of transmission of pathogens, stressing:
   - Examples of pathogens transmitted by each method
   - Portal of entry
   - Methods of prevention or control
   - Special care of contamined supplies, equipment, instruments, and specimens

5. Present lecture and lead class discussion on medical asepsis, including:
   - Methods of accomplishing medical asepsis
   - Importance of maintaining medical asepsis at all times
   - Hazards of a break in medical asepsis
   - Why health care workers must practice medical asepsis

6. Discuss the importance of good grooming and proper dress as they relate to asepsis.

7. Distribute handout on proper handwashing techniques (see page 142). Demonstrate handwashing, emphasizing the importance of following the complete procedure and explaining when it should be used.

8. Provide class time for students to practice handwashing technique.

9. Present lecture and lead class discussion on surgical asepsis, including:
   - Importance of surgical asepsis
   - When it is used
   - Hazards of contamination
   - Methods of sterilization
   - Health care workers who are involved with surgical asepsis (such as operating room technicians, dental assistants, and registered nurses)

10. Arrange a field trip to a hospital central supply area to:
    - Demonstrate the proper way to clean soiled utensils, instruments, and special care items
    - Observe sterilizing units and their operation

11. Arrange a field trip to a hospital laundry room to observe how clean and dirty laundry is handled.

12. Ask students to bring to class a list of antiseptics, germicides, and disinfectants found in their homes. Discuss the purposes and uses of these products.

13. Invite a guest speaker from the public health and sanitation department to explain its role in asepsis.

14. Assign groups of students (four or five students per group) to prepare panel discussions on microorganisms that are helpful to society. Possible topics to include are:
    - Purification of sewage and water
    - Food processing
    - Air
    - The human body

15. Arrange a field trip to the local sewage department to observe its role in public health and sanitation.

16. Discuss principles of isolation:
    - When used for the client's protection
    - When used for the health care worker's protection
    - Why it is used
    - Various methods of isolation
    - Importance of techniques

ALTERNATE LEARNING ACTIVITIES:

1. Invite a guest speaker from a hospital housekeeping department to discuss his/her role in medical and surgical asepsis.

2. Visit Extended Campus facilities in the following areas to observe their role in maintaining asepsis:
    - Housekeeping
    - Laundry
    - Nursing unit
    - Dietary department
    - Doctor's and/or dental office
    - Nursing home

SUGGESTED EVALUATION MEASURES:

1. Evaluate students' completed vocabulary lists.

2. Assign and evaluate a written report on the principles and techniques of medical asepsis.

3. Have students list hazards involved in breaking medical asepsis.
4. Have students demonstrate proper handwashing technique (see instructor's checklist on page 143).
5. Have students list methods of surgical asepsis and explain when it is used.
6. Evaluate students' Extended Campus reports.
7. Have students write an essay on how microorganisms can be helpful to society.

SUGGESTED VOCABULARY LIST:

1. Antiseptic
2. Asepsis
3. Communicable disease
4. Contamination
5. Disinfectant
6. Germicide
7. Host
8. Infectious disease
9. Medical asepsis
10. Microorganisms
11. Non-pathogens
12. Pathogens
13. Portal of entry
14. Resident flora of hands
15. Sanitizing
16. Spores
17. Sterilization
18. Surgical asepsis
19. Transient bacteria of hands

HANDWASHING PROCEDURES

1. Stand near sink, maintaining good body alignment. Do not permit clothing to touch sink in order to prevent contamination of uniform.

2. Turn on water and run continuously throughout handwashing. Three main types of faucets are:
   - Hand-operated
   - Foot pedal
   - Elbow levers

3. Adjust temperature of water to warm.
   - Warm water makes better suds
   - Hot water removes protective oil from skin
   - Hot or cold water dries skin

4. Wet hands with water; hold hands down, lower than elbows. Do not touch inside of sink or faucets—these are considered contaminated.

5. Drain water from wrists to fingertips.

6. Apply liquid or bar soap. If bar soap, rinse before returning to soap dish.

7. Wash hands, using friction and rotary motions, for 30 seconds: 10 seconds for palms, 10 seconds for backs of hands, and 10 seconds for fingers.

8. Wash fingers with fingers and thumbs interlaced.

9. Rinse, directing running water from wrists down to fingers.

10. Repeat handwashing, using Steps 5-8.

11. Inspect knuckles.

12. Clean fingernails, using orange stick or curved end of flat toothpick.

13. Dry hands gently and carefully but thoroughly. Discard towel.

14. Turn off water, using paper towel if faucet is hand-operated. Discard towel.

15. Apply antiseptic lotion if desired.

16. Return equipment and clean area with paper towel. Discard towel.

INSTRUCTOR'S CHECKLIST FOR HANDWASHING PERFORMANCE

1. Student stands away from sink, clothes not in contact with sink (sleeves rolled up, if long).
2. Student turns water on and adjusts to comfortable warm temperature.
3. Student wets hands.
4. Student applies a generous amount of soap, including under nails and between fingers.
5. Student washes palms and backs of hands with friction and rotary motion (total of 20 seconds, or 10 rotary movements).
6. Student washes fingers and between fingers, interlacing and rubbing up and down fingers and thumbs (10 seconds).
7. Student washes wrists and above wrists three to four inches, using rotary motion (10 seconds).
8. Student uses nail brush, if available, to clean under fingernails.
9. Student repeats Steps 4-8 (two-minute scrub).
10. Student pays special attention to problem areas.
11. Student rinses thoroughly, running water from wrists to fingertips. Student does not touch sink.
12. Student dries hands thoroughly from wrists to fingertips, using paper towel.
13. If faucet has no foot, knee, or elbow controls, student uses another paper towel to turn off faucet. Student discards towel in receptacle.
14. Student uses antiseptic hand lotion if desired.

GRADE: Satisfactory _____ Unsatisfactory _____

LEARNING ACTIVITY PACKAGE 13

CATEGORY: Microorganisms

FOCUS: Basic introduction to the types, effects, and control of microorganisms

ACTIVITIES: Lecture/class discussion/demonstrations/individual and group projects/guest speakers/audio-visual presentations/Extended Campus

OBJECTIVE: The student will be able to demonstrate proper care and use of the microscope. The student will also be able to discuss the major types of microorganisms and conditions favorable to their growth, as well as the control of microorganisms and the prevention of infectious disease.

RATIONALE: The purpose of this unit is to acquaint the student with the importance of microorganisms in the ecology of human development. This unit will also develop the student's awareness of the fact that controlling microorganisms is an important aspect of health services.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   An Introduction to the Study of Disease
   Microbial Life
   Microbiology
   Modern Health
   Tabor's Cyclopedic Medical Dictionary
   Your Career in Health Care

2. Films:
   Microbiology No. 8—Virus
      American Institute of Biological Sciences
   The Vision of Dr. Noch
   You Are There
      Columbia Broadcasting System
   Health Heroes: The Battle Against Disease
   Infectious Diseases and Manmade Defenses

Infectious Diseases and Natural Body Defenses
Microorganisms That Cause Disease
Viruses: Threshold of Life
   Coronet Instructional Films
Career Technicians
   Doubleday MultiMedia
Antibiotics
Bacteria—Friend or Foe
Body Defenses Against Disease
How Our Bodies Fight Disease
Immunization
   Encyclopedia Britannica Educational Corporation
Man Against Microbe
   Metropolitan Life Insurance Company

3. Filmstrips:
   Body Defenses Against Invasion by Disease
   Germ Invaders
   How Chemicals and Antibiotics Fight Disease
   Invasion by Disease
      Listening Library Inc.
   Antibiotics
   How Your Body Fights Disease
   Investigations of Bacterial Heredity
   Parasitic Worms
   The Virus Mystery
   The Virus—New Mystery
      Popular Science Publishing Company

4. Handout on care and use of the microscope (see page 150)

5. Culture plates, slides, microscopes

CONTENT OUTLINE:

A. Microscope
   1. Parts of the microscope
   2. Proper use of the microscope
   3. Care of the microscope

B. Bacteria
   1. Three types
   2. Conditions required for survival and reproduction

C. Bacteria in the Human Body
    1. Methods of entry
        a. Mouth
        b. Cuts in the skin
        c. Mucus membranes
        d. Breathing
    2. Harmless microorganisms contained in the body

D. Transmission of Microorganisms
    1. Personal contact
    2. Particles in the air
    3. Food and liquids
    4. Insects

E. Viruses
    1. Active only in cells of living organisms
    2. Result in common diseases
    3. Cannot survive long outside the body

F. Rickettsiae
    1. Cannot survive long outside the body
    2. Diseases caused by richettsiae
    3. Disease organisms—generally spread by a carrier

G. Protozoa
    1. Single-celled organisms
    2. Obtain food as a complete organism
    3. Cause few human diseases
    4. Diseases transmitted to humans

H. Fungi
    1. Belong to plant kingdom
    2. Harmless fungi—yeast and mold
    3. Feed on living organisms or decaying organic matter
    4. Mycosis
        a. Athlete's foot
        b. Ringworm

I. Control and Destruction of Microorganisms
    1. Natural defenses against infection
    2. Active immunity
    3. Passive immunity
    4. Sterilization
    5. Disinfection
    6. Antibiotics and chemotherapy

J. Public Health and Public Health Officials

K. Health Occupations Associated with Microorganisms
   1. Certified laboratory assistant
   2. Histologic technician
   3. Medical assistant
   4. Pharmacist
   5. Research scientist
   6. Pathologist
   7. Cytotechnologist
   8. Medical librarian
   9. Medical illustrator
   10. Medical photographer
   11. Public health worker

SUGGESTED LEARNING ACTIVITIES:

1. Divide class into small groups (about five students per group). Ask each group to prepare a poster and a panel presentation about one of the following types of organisms:
   - Bacteria
   - Rickettsiae
   - Protozoa
   - Fungi
   - Viruses

   Videotape panel presentations if desired.

2. Individually or in small groups, have students streak culture plates and prepare slides from inoculated plates after incubation of 24, 48, and 72 hours. Have students view slides under the microscope and prepare written or oral reports on their observations at each stage.

3. In small groups, have students prepare charts illustrating positive and negative aspects of bacteria, molds, fungi, etc. Lead a class discussion on the completed charts.

4. Invite a medical technologist, medical laboratory technician, or certified laboratory technician to speak to the class about employment opportunities, training required, and types of work performed.

5. Conduct a laboratory experiment in growing microbes.
   - Collect one or more of the following samples:
     - Sneeze sputum on a paper plate
     - Raisins in water on a shelf
     - Fruit in a small amount of syrup in a dark place
     - Moistened bread in a dark place

- Check each sample daily and note findings; prepare and examine slides under the microscope.
- CAUTION: If using culture media such as beef broth, be sure to seal culture plates and dispose directly into school incinerator.
- Complete a "germ" chart, tabling characteristics and conditions which favor or relate to the growth of specific types of microbes.

6. Distribute handout on the care and use of the microscope (see page 150). Demonstrate procedures.
7. Have students examine various objects (such as a drop of water, a strand of hair, etc.) to become familiar with the use of the microscope.
8. Divide students into teams to demonstrate the care and use of the microscope and critique one another's demonstrations, using the handout as a checklist.

ALTERNATE LEARNING ACTIVITIES:

1. Have students prepare a written or oral report on a career area dealing with microorganisms.
2. Arrange a field trip to a medical or research laboratory to observe the kinds of workers employed, work being performed, and special equipment being used.
3. Have students interview public health officials and prepare reports on the types of inspections required in community facilities (such as restaurants, hospitals, and nursing homes) to prevent the spread of disease.
4. Assign a group of students to assemble a bulletin board displaying the complex structure of the Public Health Department.
5. Visit a medical laboratory to observe how microbes are prepared for study, examined, and stored.
6. Have students review newspapers, current magazines, etc. for information relating to microbiology and the prevention of infectious disease.

7. Show films and/or filmstrips concerning microbes. Classify types of microbes on the chalkboard and discuss the influence of each on health and disease.

8. Discuss immunity, defining types of immunity and providing examples of situations in which each might occur.

9. Have students chart communicable diseases for which immunity may be obtained, indicating those diseases for which they themselves have immunity. Discuss the need to keep immunizations up-to-date.

10. Visit an immunization clinic and discuss observations in class.

11. After reviewing current information on the value and importance of immunization, lead a class debate on "Which is better—immunization or the use of antibiotics?"

SUGGESTED EVALUATION MEASURES:

1. Evaluate panel presentations.

2. Distribute copies of the Suggested Vocabulary List and ask students to submit written definitions for evaluation.

3. Test students on information presented through lectures, guest speakers, audio-visual materials, and field trips.

SUGGESTED VOCABULARY LIST:

1. Antibiotics
2. Bacteria
3. Chemotherapy
4. Disease
5. Disinfection
6. Fungi
7. Immunity
8. Infection
9. Mycosis
10. Pathogens
11. Protozoa
12. Rickettsiae
13. Sterilization
14. Viruses

PROCEDURES FOR THE CARE AND USE OF THE MICROSCOPE

1. Make it a habit to keep both eyes open.
2. Avoid direct sunlight.
3. When a slide is placed on the stage, see that it lies flat against the stage.
4. Adjust light so that the object is evenly illuminated.
5. Focus down by means of course adjustment until it nearly touches the cover glass.
6. Focus up until the object comes plainly into view.
7. Complete focusing, using fine adjustment.
8. Keep microscope clean.
9. Handle all parts with care.
10. Never touch glass parts with fingers.
11. Clean microscope thoroughly after each use.
12. Place objective in such a position that lowest power is in the working position.
13. Cover and store microscope.

LEARNING ACTIVITY PACKAGE 14

CATEGORY: The Integumentary System

FOCUS: Introduction to the integumentary system: the primary covering of the body, consisting of the nails, hair, skin, and the various glands of the skin

ACTIVITIES: Lecture/demonstrations/audio-visual presentations/guest speakers

OBJECTIVE: The student will be able to identify and describe the parts and proper care of the skin; the makeup, use, and proper care of the nails; and the components, types, and proper care of hair.

RATIONALE: The purpose of this unit is to introduce the student to the basic structure and functions of the integumentary system.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Anatomy and Physiology
   Anatomy of the Human Body
   Body Structure and Functions
   The Human Body
   Human Physiology
   Modern Health
   Textbook of Physiology
   The Wonderful Human Machine

2. Filmstrips:
   Your Skin
      Curriculum Materials Corporation
   Your Skin and Its Care
      Jam Dandy Organization
   The Skin, Hair and Nails
      McGraw-Hill Book Company

3. Handout depicting a cross-section of skin

4. Microscope, slide of skin

5. Two beakers, olive oil, water, large container

6. Overhead Transparencies (suggested for development):
   Cross-Section of Hair
   Cross-Section of Skin
   Fingerprints
   Functions of the Skin, Hair, and Nails

CONTENT OUTLINE:

A. Structure of the Skin
   1. Epidermis
   2. Dermis
   3. Subcutaneous layer

B. Glands of the Skin
   1. Sudoriferous
   2. Ceruminous
   3. Ciliary
   4. Sebaceous

C. Functions of the Skin
   1. Protection
   2. Regulation of body temperature
   3. Information about the environment (pain, touch, pressure, temperature)

D. Observation of the Skin
   1. Color
   2. Pigment
      a. Melanin
      b. Sunlight
      c. Abnormal melanin content

E. Appendages
   1. Nails
   2. Hair

SUGGESTED LEARNING ACTIVITIES:

1. Using an overhead transparency displaying a cross-section of skin, discuss the structure of the skin.

2. Distribute handout depicting a cross-section of skin. Have students label the different parts of the skin; lead a class discussion on the functions of the skin.

3. Invite a nurse to speak to the class about the care of the skin and about skin problems and their treatment.

4. Have students examine a piece of skin under a microscope, draw what they see, and label the different parts using correct terminology.

5. Conduct a class experiment by placing equal amounts of water in two beakers. Cover the water in one beaker with olive oil to prevent evaporation. Place both beakers in a container of boiling water. Discuss:
   - In which beaker did the temperature rise most rapidly? Why?
   - What conclusion can be drawn from this experiment regarding heat loss and human body temperature?

ALTERNATE LEARNING ACTIVITIES:

1. Discuss how sores, cuts, abrasions, and breaks in the skin affect personal safety.

2. Invite a guest speaker (such as a dermatologist) to discuss special skin care for clients, emphasizing the care of the nails and hair.

3. Show a filmstrip on the skin; discuss.

SUGGESTED EVALUATION MEASURES:

1. Test students on information presented through lectures, guest speakers, and audio-visual presentations.

2. Distribute copies of the Suggested Vocabulary List and ask students to submit written definitions for evaluation.

3. Have students label the parts of the skin on a drawing.

4. Assign and evaluate a written report on types of skin disorders.

SUGGESTED VOCABULARY LIST:

1. Ceruminous
2. Ciliary
3. Dermis
4. Epidermis
5. Follicle
6. Melanin
7. Pigmentation
8. Pore
9. Sebaceous
10. Subcutaneous layer
11. Sudoriferous
12. Sweat gland

LEARNING ACTIVITY PACKAGE 15

CATEGORY: The Reproductive System

FOCUS: Introduction to the functions of the male and female reproductive systems

ACTIVITIES: Lecture/class discussion/individual projects/audio-visual presentations

OBJECTIVE: The student will be able to identify the male and female reproductive organs, the hormones associated with reproduction, and the functions of the male and female reproductive systems.

RATIONALE: The purpose of this unit is to develop the student's knowledge of the male and female reproductive systems and the process of reproduction.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Atlas of Human Anatomy
   Human Physiology
   Modern Health
   Nursing and Allied Health Services
   Structure and Function of the Human Body
   Textbook of Anatomy and Physiology

2. Films:
   Boy to Man
   Girl to Woman
   Vasectomy
      Churchill Films
   The Human Body: Reproductive System
      Coronet Instructional Films
   Biography of the Unborn
      Encyclopedia Britannica Educational Corporation
   Human Reproduction
      McGraw-Hill Book Company
   Glands and Hormones
      Moreland-Latch Ford Productions Ltd.

3. **Filmstrips:**
   Becoming a Man
   Becoming a Woman
      Guidance Associates
   How Hormones Control the Body
      McGraw-Hill Book Company
   The Glandular System
      Society for Visual Education, Inc.

4. Overhead Transparencies (suggested for development):
   Female Reproductive Organs
   Male Reproductive Organs
   Medical Use of Sex Hormones
   Secretion Hormones of Reproduction

5. Handouts depicting the male and female reproductive organs

CONTENT OUTLINE:

A. Female Reproductive System
   1. External organs (vulva)
      a. Mons pubis
      b. Labia majora
      c. Labia minora
      d. Clitoris
      e. Vaginal orifice
      f. Glands
      g. Perineum
      h. Breasts (mammary glands)
   2. Internal organs
      a. Vagina
      b. Cervix
      c. Uterus
      d. Uterine or fallopian tubes
      e. Ovaries

B. Male Reproductive System
   1. External organs
      a. Scrotum
      b. Testes
      c. Epididymis
      d. Vas deferens

        - e. Penis
        - f. Glands
    - 2. Internal Organs
        - a. Seminal vesicles
        - b. Prostate gland
        - c. Cowper's gland
        - d. Vas deferens (spermatic cord)

- C. Reproduction
- D. Puberty
- E. Menstruation
- F. Menopause
- G. Health Occupations Related to the Reproductive System

SUGGESTED LEARNING ACTIVITIES:

1. Show overhead transparencies of the male and female reproductive organs; discuss. Distribute drawings of the reproductive organs and ask students to label them.

2. Using an overhead transparency, lead a class discussion on the medicinal influence and functions of the sex hormones.

3. Show the filmstrips *Becoming a Woman* and *Becoming a Man*; discuss.

4. Discuss the path of a sperm cell from point of production through the male system, into the female system, and to the egg.

5. Through class discussion, develop a list of the ways in which the male and female reproductive systems differ.

ALTERNATE LEARNING ACTIVITIES:

1. Have students research and prepare written or oral reports on the process of reproduction.

2. Have students prepare written or oral reports on the formation and birth of identical and fraternal twins.

SUGGESTED EVALUATION MEASURES:

1. Have students label drawings of the male and female reproductive organs.
2. Distribute copies of the Suggested Vocabulary List and ask students to submit written definitions for evaluation.
3. Have students write an essay on the process of reproduction, includincluding identical and fraternal twins.

SUGGESTED VOCABULARY LIST:

1. Birth
2. Breasts
3. Cervix
4. Cowper's gland
5. Conception
6. Embryo
7. Epididymis
8. Fertilization
9. Fundus
10. Labia majora
11. Labia minora
12. Menopause
13. Menstruation
14. Orifice
15. Ovaries
16. Ovum
17. Penis
18. Pregnancy
19. Prostate gland
20. Puberty
21. Reproduction
22. Scrotum
23. Semen
24. Seminal vesicles
25. Sperm
26. Testes
27. Urethra
28. Uterine (fallopian) tubes
29. Uterus (womb)
30. Vagina
31. Vas deferens
32. Vulva

LEARNING ACTIVITY PACKAGE 16

CATEGORY: **Basic Anatomical Terms and Components**

FOCUS: **Anatomical terminology; location and position of the various anatomical components**

ACTIVITIES: **Class discussion/demonstrations/laboratory activities/guest speakers/audio-visual presentations/Extended Campus**

OBJECTIVE: **The student will be able to list the systems of the human body. The student will also be able to locate and identify the body cavities and organs on a model or drawing.**

RATIONALE: **The purpose of this unit is to provide the student with a basic understanding of the makeup of the human body. To function as an effective team member, the health occupations worker must master an extensive vocabulary of terms relating to the body systems.**

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Anatomy of the Human Body
   Atlas of Human Anatomy
   Body Structure and Function
   Careers in Focus
   Essentials of Neurology
   Frazer's Anatomy of the Human Skeleton
   Health Assistant
   Health Technicians and Career Opportunities
   The Human Body
   The Human Body in Health and Disease
   Human Physiology
   An Introduction to the Study of Disease
   Life Sciences for Health Technologies
   Medical-Surgical Nursing
   Modern Bedside Nursing
   Modern Health
   Nursing Skills for Allied Health Services
   Structure and Function of the Human Body
   Textbook of Anatomy and Physiology

Textbook of Physiology
Your Career in Health Care

2. Films:
   Embattled Cell
      American Cancer Society
   Tissues of the Human Body
      Churchill Films

3. Model, chart, and/or drawing of the human body

4. Handouts of cell, tissue, organ, and system diagrams

5. Microscope, slides of cellular structures

6. Laboratory specimens (frogs, fish, or earthworms)

CONTENT OUTLINE:

- A. Basic Components of the Body
  - 1. Cells
    - a. Structure
    - b. Functions
    - c. Types
  - 2. Tissues
    - a. Epithelial
    - b. Connective
    - c. Muscle
    - d. Nerve
  - 3. Cavities
    - a. Dorsal
      - (1) Cranial
      - (2) Spinal
    - b. Ventral
      - (1) Thoracic
      - (2) Abdominal
      - (3) Pelvic

- B. Skeletal System
  - 1. Functions
  - 2. Components
    - a. Bones
    - b. Joints
    - c. Cartilage

C. Muscular System
  1. Functions
  2. Components
    a. Muscles
    b. Tendons
    c. Ligaments

D. Integumentary System
  1. Functions
  2. Components
    a. Skin
    b. Hair
    c. Nails
    d. Glands

E. Digestive System
  1. Functions
  2. Components
    a. Mouth
    b. Tongue
    c. Salivary glands
    d. Teeth
    e. Pharynx
    f. Esophagus
    g. Stomach
    h. Small intestine
    i. Large intestine
    j. Liver
    k. Gall bladder
    l. Pancreas
  3. Process of digestion

F. Circulatory System
  1. Functions
  2. Components
    a. Blood
    b. Blood vessels
    c. Heart
  3. How blood circulates

G. Respiratory System
  1. Functions
  2. Components
    a. Nose
    b. Pharynx
    c. Larynx

        - d. Trachea
        - e. Bronchi
        - f. Lungs
    - 3. Respiration

- H. Urinary System
    - 1. Functions
    - 2. Components
        - a. Kidneys
        - b. Ureter
        - c. Bladder
        - d. Urethra
        - e. Urine

- I. Nervous System
    - 1. Functions
    - 2. Components
        - a. Neurons
        - b. Brain
        - c. Spinal cord

- J. Special Organs
    - 1. Functions
    - 2. Components
        - a. Eye
        - b. Ear
        - c. Nose
        - d. Tongue

- K. Endocrine System
    - 1. Functions
    - 2. Components
        - a. Pineal gland
        - b. Pituitary
        - c. Thyroid
        - d. Parathyroid
        - e. Thymus
        - f. Adrenal glands
        - g. Pancreas (islands of Langerhans)
        - h. Ovaries
        - i. Testes

- L. Reproductive System
    - 1. Functions
    - 2. Components

- a. Male organs
    - (1) Scrotum
    - (2) Penis
    - (3) Testes
- b. Female organs
    - (1) External genitals—vulva
    - (2) Ovaries
    - (3) Uterine tubes
    - (4) Uterus

M. Health Occupations
1. Pathologist
2. Mortician
3. Veterinarian assistant
4. Medical laboratory technician
5. Cytotechnologist
6. Radiological technician

SUGGESTED LEARNING ACTIVITIES:

1. In a laboratory setting, have students dissect a frog, fish, or earthworm and identify the body cavities and organs in the specimen. Lead a class discussion comparing the components of the specimen to those of the human body.

2. Have students disassemble and reassemble a model of the human body, naming the various parts. Have students pay particular attention to the location of each part in relation to others. Encourage the use of the terms superior/inferior, ventral/anterior, and dorsal/posterior.

3. Invite a veterinarian to discuss and demonstrate how he/she uses knowledge of anatomy and physiology in working with animals. Ask the speaker to use props such as X-rays or live animals if possible.

ALTERNATE LEARNING ACTIVITIES:

1. Distribute diagrams of cells, tissues, organs, and body systems for students to label.

2. Prepare slides of cellular structures for students to view under the microscope (for example, cells from mucus membrane of cheek, a drop of blood, a drop of pond water, a thin slice of cork, the hairs of a geranium leaf).

3. Invite a guest speaker (for example, a blood bank technologist or a medical laboratory technologist) to discuss cytology.

4. Visit a medical laboratory in a local health facility to observe the tests ordered by doctors for their patients. Have students interview a laboratory technician about employment opportunities, amount of training required, and work performed.

5. Show films *Tissues of the Human Body* and *Embattled Cell*; discuss.

6. Review the use and care of the microscope. (See Learning Activity Package 13.) Have students view blood cells and body tissues under the microscope.

7. Have students write a few short paragraphs about their body functions as they presently understand them. (This could serve as a pretest activity.)

SUGGESTED EVALUATION MEASURES:

1. Test students on their knowledge of body cavity locations and anatomical terms.

2. In a laboratory setting, have students identify the four basic types of cellular tissue.

3. Distribute copies of the Suggested Vocabulary List and ask students to submit written definitions for evaluation.

SUGGESTED VOCABULARY LIST: (Add terms listed under Content Outline)

1. Anatomy
2. Dorsal cavity
3. Gland
4. Membrane
5. Organ
6. Physiology
7. Protoplasm
8. System
9. Tissue
10. Ventral cavity

LEARNING ACTIVITY PACKAGE 17

CATEGORY:	**Basic Emergency Care**
FOCUS:	Preparing students to handle emergency situations in and out of the clinical setting
ACTIVITIES:	Lecture/class discussion/demonstrations/individual and group projects/role-playing/audio-visual presentations/guest speaker/ Extended Campus
OBJECTIVE:	The student will be able to list the proper procedures for assessing minor emergencies. The student will also be able to identify and demonstrate appropriate procedures for treating victims in various emergency situations.
RATIONALE:	The purpose of this unit is to develop the student's ability to react appropriately in an emergency, in or out of the clinical setting.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Emergency Medical Guide
   Introduction to Nursing Care
   The Lippincott Manual of Nursing Practice
   The Nurse's Guide to the Law
   Nursing Skills for Allied Health Services
   Principles and Practices of Nursing Care

2. Film:
   Rescue Breathing (IHA #161 EM 488)
   Illinois Heart Association

3. Exhibits:
   Heimlick Maneuver Poster
   Edumed Inc.
   Rescue Breathing Can Save a Life (IHA #162 EM 537)
   Illinois Heart Association
   Resuscitant Annie
   Illinois Heart Association or local Fire Department

4. Overhead Transparencies:
   Basic Nursing I
   Minnesota Mining and Manufacturing Company

5. Overhead transparencies and/or handouts listing types of wounds and providing diagrams of each

6. Overhead transparencies and/or handouts listing types of fractures and providing diagrams of each

7. Antidote charts, available from local Public Health Department

8. Handout of information on Good Samaritan Act, available from local Public Health Department or Red Cross agency

9. Handout of vocabulary terms (see page 172)

10. First aid equipment:
    - Gauze bandages (1-inch, 2-inch, 3-inch)
    - Elastic bandages (2-inch, 4-inch)
    - Splints (arm, leg)

CONTENT OUTLINE:

A. Definition and Philosophy of Emergency Care
   1. Definition
   2. Values
   3. Reasons
   4. Legal aspects

B. General Principles of Emergency Care
   1. Basic rule: Never panic—keep calm
   2. Evaluate situation
      a. Breathing
      b. Clear airway
      c. Heart beating
      d. Visible bleeding
      e. Fractures
   3. Establish plan of action
      a. Maintain body temperature
      b. Never give liquids to unconscious victim
      c. Do not move critically injured victim unless absolutely necessary
      d. Treat for shock

C. Shock
    1. Symptoms
        a. Weak, thready, rapid pulse
        b. Pallor
        c. Cold, clammy skin
        d. Unconsciousness
    2. Basic principles of treatment
        a. Keep victim flat and quiet
        b. Keep victim warm

D. Respiratory Emergencies
    1. Definition
    2. Causes
        a. Drowning
        b. Ingested and inhaled objects
        c. Mechanical suffocation
        d. Gas inhalation
        e. Electrical current
    3. Signs and symptoms
    4. Artificial respiration
        a. Mouth-to-mouth
        b. Mouth-to-nose
        c. Mouth-to-nose-and-mouth
    5. Prevention of accidents

E. Wounds
    1. Types
        a. Puncture
        b. Incision
        c. Laceration
        d. Abrasions
        e. Contusions
    2. Control of bleeding
        a. Direct pressure
        b. Pressure points

F. Burns
    1. Types and classifications
        a. First-degree
        b. Second-degree
        c. Third-degree
    2. Basic principles of treatment
        a. Relieve pain
        b. Prevent loss of body fluid
        c. Prevent infection
    3. Dressings

- G. Poisons and Drugs
  - 1. Types of poisons
    - a. Corrosive acids
    - b. Corrosive alkalies
    - c. Petroleum products
    - d. Drugs
      - (1) Barbiturates
      - (2) Alcohol
      - (3) Psychedelic drugs
  - 2. Basic principles of treatment
    - a. Establish and maintain airway
    - b. Remove ingested poison from body
    - c. Protect victim
    - d. Obtain any empty bottles or drugs near victim
  - 3. Safety measures

- H. Fractures
  - 1. Types
    - a. Simple
    - b. Compound
  - 2. Basic principles of treatment
    - a. Immobilize part
    - b. Relieve pain
    - c. Reduce swelling
  - 3. Splints

- I. Dressings and Bandages
  - 1. Dressings
  - 2. Bandages
    - a. Sling
    - b. Triangular
    - c. Cravat
    - d. Roller
      - (1) Circular
      - (2) Figure-8
      - (3) Spiral

- J. Frostbite and Cold Exposure
  - 1. Characteristics
  - 2. Symptoms
  - 3. Basic principles of treatment

- K. Heat Stroke, Cramp, and Exhaustion
  - 1. Definition
  - 2. Signs and symptoms
  - 3. Basic principles of treatment

L. Sudden Illness
   1. Coronary attack
   2. Convulsions and seizures

M. Special Emergency Procedures
   1. Heimlick or Thrush procedure
   2. Cardio-pulmonary resuscitation (CPR)

SUGGESTED LEARNING ACTIVITIES:

1. Distribute handout of vocabulary terms for students to define by the end of the unit (see page 172).

2. Have students write a paragraph defining emergency care and describing its usefulness to the health care worker and to the community.

3. Distribute handout on the Good Samaritan Act and lead a class discussion on how it benefits the health care worker.

4. Discuss the necessity of remaining calm during an emergency. Explain how the health care worker's reaction is reflected by the people involved in an emergency situation.

5. Lead a class discussion on how to evaluate emergency situations. On the chalkboard, list the steps in assessing an emergency victim's condition as they are developed through student input.

6. Using overhead transparencies and/or handouts, define and describe the various types of wounds.

7. Using the overhead transparency on pressure points from the *Basic Nursing I* series, discuss the control of bleeding through direct pressure. Demonstrate.

8. Lead a class discussion on the classifications of burns and basic principles of burn treatment.

9. In small groups, have students develop posters on the three types of burns, including possible causes and initial treatment (both in the clinical setting and in the home).

10. Using overhead transparencies and/or handouts, define and describe the various types of fractures.

11. Present a lecture and lead a class discussion on the initial treatment of fractures, including objectives of treatment.

12. On the chalkboard, list types of poisons and steps in the initial treatment of poisonings.

13. After distributing antidote charts, divide class into small groups. Ask each group to develop a poster and a panel presentation on one type of poisoning, including its treatment and prevention. Have students bring in labels from empty containers of possible poisons found in the home. Also, have students find out where the state and local poison control centers are located.

14. Using the Heimlick Maneuver Poster, demonstrate the Heimlick procedure to the class.

15. Divide students into pairs to practice the Heimlick procedure.

16. Using a volunteer, demonstrate techniques used in bandaging various parts of the body. Include circular, figure-8, spiral, cravat, and sling bandages.

17. In small groups, allow students to practice applying bandages.

18. Present a lecture on principles of splint application and types of splints. Demonstrate, using a volunteer.

19. In small groups, allow students to practice splint application. Have students bring in materials that could be used to make an emergency splint (for example, newspapers, magazine, wood scraps).

20. Using the exhibit *Rescue Breathing Can Save a Life*, discuss and demonstrate proper procedures for checking breathing.

21. Invite a guest speaker to demonstrate rescue breathing techniques (for example, a representative from the local Red Cross agency or Illinois Heart Association chapter, a worker from a local health facility's respiratory therapy department, an emergency medical technician from the local fire department, or a local physician).

22. If possible, obtain a Resuscitant Annie and allow students to practice rescue breathing procedures.

23. At the end of the unit, divide students into two groups. Using role-playing, have students act out the steps in caring for the victim in several hypothetical emergency situations. (Students might bring in news articles of accidents to use as a basis for role-playing.) Students should evaluate the situation, form a plan of action, and act on the emergency.

ALTERNATE LEARNING ACTIVITIES:

1. Visit a local emergency room or trauma center.
2. Have students prepare a written report on an emergency situation in a clinical setting and the proper response of the health care worker. Students should follow these guidelines:
   - Prevent injury of patient
   - Stay with the patient
   - Summon help

SUGGESTED EVALUATION MEASURES:

1. Have students list steps in evaluating an emergency situation and establishing a plan of action.
2. Assign and evaluate a written report on the impact of the Good Samaritan Act on the health care worker.
3. Evaluate students' completed vocabulary lists.
4. Have students list the types of wounds and fractures and appropriate treatment of each.
5. Have students list pressure points and demonstrate direct pressure.
6. Have students define first-, second-, and third-degree burns and describe the appropriate treatment of each.
7. Have students demonstrate:
   - Bandage application
   - Heimlick procedure
   - Splint application
   - Mouth-to-mouth resuscitation

8. Evaluate role-playing activities.

9. Have students list types of possible poisons and appropriate treatment of poisonings.

SUGGESTED VOCABULARY LIST:

1. Abrasion wound
2. Bandages
3. Cardio-pulmonary
4. Compound fracture
5. Contusion wound
6. Convulsion
7. Coronary
8. Dressings
9. First-degree burn
10. Heimlick procedure
11. Immobilize
12. Incision wound
13. Laceration wound
14. Puncture wound
15. Resuscitation
16. Second-degree burn
17. Seizure
18. Shock
19. Simple fracture
20. Symptoms
21. Third-degree burn

LEARNING ACTIVITY PACKAGE 18

CATEGORY: The Skeletal System

FOCUS: Introduction to the skeletal system and its function as the living framework for the other body systems

ACTIVITIES: Lecture/class discussion/demonstrations/guest speakers/audio-visual presentations/Extended Campus

OBJECTIVE: The student will be able to describe the composition and functions of bones and identify the different types of bones and their locations. The student will also be able to list the major components of the skeletal system and to describe, identify, and locate the joints.

RATIONALE: The purpose of this unit is to acquaint the student with the design of the skeletal system and with the structure, composition, and functions of bones. Furthermore, this unit will provide the student with information about different aspects of bone development, functions of joints, and malfunctions and diseases of bones.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Anatomy and Physiology
   Anatomy of the Human Body
   Atlas of Human Anatomy
   Body Structure and Functions
   Fraser's Anatomy of the Human Skeleton
   The Human Body
   Human Physiology
   Modern Health
   Structure and Function of the Human Body
   Textbook of Anatomy and Physiology
   Textbook of Physiology

2. Films:
   The Mechanics of Life: Bones and Joints
   BFA Educational Media

The Human Body: Skeleton
   Coronet Instructional Films
The Skeleton
Spinal Column Structure and Functions of Man
   Encyclopedia Britannica Educational Corporation
Human Skeleton
   United World Films Inc.

3. Filmstrips:
   Your Bones
      Curriculum Materials Corporation
   Bones and Muscles
      Listening Library Inc.

4. Cassette:
   The Physical Me (with three-dimensional model)
      A.J. Nystrom and Company

5. Overhead Transparencies (suggested for development):
   Bone Fractures
   Composition of Bones
   Functions of Bones (see page 178)
   Joints
   Osteology: The Bones
   Types of Bones

6. Handout on the types of bones

7. Handout of bone diagram

8. Handout illustrating joints and bones of the human skeleton

9. Model of the human skeleton

10. Cross-section of bone, magnifying glass

CONTENT OUTLINE:

A. Major Bones of the Axial Skeleton
   1. Cranial
      a. Frontal
      b. Parietal
      c. Occipital

    - d. Temporal
    - e. Sphenoid
    - f. Ethmoid
  - 2. Facial
    - a. Mandible
    - b. Maxilla
    - c. Palatine
    - d. Vomer
    - e. Zygomatic
    - f. Lacrimal
    - g. Nasal
  - 3. Trunk
    - a. Hyoid
    - b. Vertebral
      - (1) Cervical
      - (2) Thoracic
      - (3) Lumbar
      - (4) Sacral
      - (5) Coccygeal
    - c. Sternum
    - d. Ribs

- B. Major Bones of the Appendicular Skeleton
  - 1. Pectoral girdle
    - a. Clavicle
    - b. Scapula
  - 2. Upper appendages
    - a. Humerus
    - b. Radius
    - c. Ulna
    - d. Carpal
    - e. Metacarpal
    - f. Phalangeal
  - 3. Pelvic girdle
    - a. Ilium
    - b. Pubic
    - c. Ischium
  - 4. Lower appendages
    - a. Femur
    - b. Tibia
    - c. Fibula
    - d. Patella
    - e. Tarsal
    - f. Metatarsal
    - g. Phalangeal

- C. Functions of the Skeleton

D. Joints
   1. Types
      a. Movable
      b. Immovable
   2. Structure
   3. Movements
      a. Flexion
      b. Extension
      c. Abduction
      d. Adduction
      e. Rotation

SUGGESTED LEARNING ACTIVITIES:

1. Using a model of the human skeleton, identify the different bones and types of bones.

2. Distribute handout on the different types of bones. Using an overhead transparency, discuss and classify types of bones.

3. Using a model of the human skeleton, have students identify and locate the more common bones.

4. Have students examine a bone cut lengthwise and label a diagram or drawing to identify the basic components. Using a powerful magnifying glass, have students locate the canals for blood vessels, nerves, and the marrow.

5. Lead a class discussion on how a knowledge of bones and their development is helpful to the health care worker, emphasizing the identification of cartilaginous tissue and brittle bones according to age and sex of the client.

6. Visit a nursing home and a child day care center. Ask students to observe and compare differences between the elderly adult and the child relative to Activity #5.

7. Identify the different types of joints and demonstrate movements.

8. Invite a guest speaker (for example, an occupational therapist, a rehabilitation therapist, or a physical therapist) to discuss how a basic knowledge of the skeletal system is necessary to function effectively as a health care worker.

9. Discuss the various health care occupations that are directly associated with the maintenance and rehabilitation of body movement (physical therapy, occupational therapy, etc.).

ALTERNATE LEARNING ACTIVITIES:

1. After playing the cassette *The Physical Me*, lead a class discussion using the accompanying three-dimensional model.
2. Distribute handouts illustrating the joints and bones of the human skeleton. Have students label the basic parts of the skeleton.

SUGGESTED EVALUATION MEASURES:

1. Have students label a drawing of the human skeleton.
2. Have students label a drawing of the different joints of the body.
3. Give students a practical examination on bone location: point to the location of various bones and ask students to identify the bones by name.
4. Distribute copies of the Suggested Vocabulary List and ask students to submit written definitions for evaluation.

SUGGESTED VOCABULARY LIST:

1. Appendicular skeleton
2. Axial skeleton
3. Carpal
4. Cartilage
5. Clavicle
6. Cranial
7. Femur
8. Humerus
9. Ligaments
10. Metatarsal
11. Patella
12. Phalanges
13. Radius
14. Ribcage
15. Scapula
16. Skeleton
17. Sternum
18. Tarsal
19. Thorax
20. Tibia
21. Ulna
22. Vertebra

FUNCTIONS OF BONES

1. As beams, bones form the supporting framework of the body.
2. As levers, bones provide muscle attachments and function in body movement.
3. As shields, bones protect vital internal organs which lie beneath them.
4. As vaults, bones serve as the principal storehouse for essential body minerals.
5. As factories, bones function as centers for the production of red blood corpuscles and certain types of white blood corpuscles.

LEARNING ACTIVITY PACKAGE 19

CATEGORY: The Muscular System

FOCUS: Introduction to the muscular system, which in conjunction with the skeletal system and joints, allows body movement

ACTIVITIES: Lecture/class discussion/demonstrations/laboratory activities/audio-visual presentations/Extended Campus

OBJECTIVE: The student will be able to describe, identify, and locate the major muscles of the body and discuss the origin, insertion, and action of some of the more important muscles. The student will also be able to identify the different types of muscles, define the different types of muscle injuries, and describe the functions of the tendons and ligaments.

RATIONALE: The purpose of this unit is to acquaint the student with the structure and functions of the muscular system and to develop the student's awareness of the importance of the musculature of the body. This unit will also provide the student with information regarding the different types of muscle injuries.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Atlas of Human Anatomy
   Basic Human Anatomy
   Human Physiology
   Modern Health
   Structure and Function of the Human Body
   Textbook of Human Anatomy and Physiology

2. Films:
   Muscles and Bones of the Body
      Coronet Instructional Films
   Your Posture
      McGraw-Hill Book Company
   The Muscular System
      United World Films Inc.

3. **Filmstrips:**
   Your Muscles
      Curriculum Materials Corporation
   Your Bones and Muscles
      Eyegate House, Inc.
   Bones and Muscles
      Listening Library Inc.
   Muscles
      United World Films Inc.

4. Overhead Transparencies (suggested for development):
   Major Muscles of the Body
   Muscle Injuries (see page 184)
   Tendons and Ligaments
   Types of Muscles (see page 184)

5. Handout illustrating major muscles of the body

6. Chicken legs

7. Microscope and slides

CONTENT OUTLINE:

A. Functions of Muscles
   1. Movement
   2. Heat and energy
   3. Posture and body mechanics

B. Types of Muscle Tissue
   1. Striated
   2. Smooth
   3. Cardiac

C. Characteristics of Muscle Tissue
   1. Contractibility
   2. Elasticity
   3. Extensibility
   4. Irritability
   5. Tonus

D. General Description of Muscles

E. Types of Muscles

1. Abductors
2. Adductors
3. Flexors
4. Extensors
5. Rotators
6. Sphincters

F. Main Skeletal Muscles

1. Neck
    a. Sternocleidomastoid
2. Shoulder
    a. Deltoid
3. Upper arm
    a. Biceps brachii
    b. Triceps brachii
4. Lower arm (forearm)
    a. Brachioradialis
    b. Pronator
5. Back
    a. Trapezius
    b. Latissimus dorsi
6. Chest
    a. Pectoralis major
    b. Pectoralis minor
7. Abdominal wall
    a. External oblique
    b. Internal oblique
    c. Transversus
    d. Rectus abdominis
8. Buttocks
    a. Gluteus maximus
    b. Gluteus medius
    c. Gluteus minimus
9. Thigh
    a. Quadriceps femoris
    b. Hamstring group
10. Leg (lower)
    a. Tibialis anterior
    b. Tibialis posterior
    c. Gastrocnemius
11. Pelvic floor
    a. Levator ani

G. Muscle Injuries

1. Muscle strain
2. Torn muscle

3. Muscle bruise
4. Muscle cramp
5. Muscle fatigue

SUGGESTED LEARNING ACTIVITIES:

1. Visit a rehabilitation center or similar facility to observe a physical therapist giving a client exercises in a Hubbard tank or whirlpool.

2. Using an overhead transparency, discuss the types and functions of muscles. Distribute handouts illustrating the muscular system and have students label the muscles.

3. Prepare a slide of tiny shreds of muscle from a chicken leg. Place a drop of water on the slide to prevent muscle fibers from drying out. Have students examine the shreds of muscle under a microscope and make a drawing based on their observations.

4. Remove the skin from the thigh of a freshly killed chicken and have students examine the muscular system, observing how the muscles are arranged horizontally, vertically, and diagonally.

5. Carefully dissect some muscles from a chicken leg. Have students observe how the muscles are attached to the bone, and locate the tendons involved.

6. Lead a class discussion on causes of poor posture, including:
   - Lack of exercise
   - Lack of variety in work and exercise
   - Improper clothing
   - Lack of participation in games
   - Overrun of some body part
   - Rapid growth
   - Fatigue
   - Mental and emotional state
   - Improper diet

7. Have different students demonstrate proper posture when sitting, standing, and walking.

8. Lead a class discussion on points to consider when buying shoes for everyday wear.

ALTERNATE LEARNING ACTIVITIES:

1. Lead a class discussion on motions involved in various sports, such as serving in tennis, throwing a ball, or swimming. Ask the class to identify the principal groups of superficial muscles that are involved in each of these activities.

2. The scientific names of most muscles are quite long and descriptive. Explain the basis for these names and cite specific muscles as illustrations. Lead a class discussion on why it is advantageous to have names of this type.

SUGGESTED EVALUATION MEASURES:

1. Have students label a diagram on which lines have been drawn to the major muscles of the body.

2. Distribute copies of the Suggested Vocabulary List and ask students to submit written definitions for evaluation.

3. Test students on information presented through lectures, class discussion, and laboratory activities.

SUGGESTED VOCABULARY LIST:

1. Abduction
2. Adduction
3. Atrophy
4. Biceps brachii
5. Bursae
6. Cardiac muscle
7. Contraction
8. Deltoid
9. Elasticity
10. Equilibrium
11. Extension
12. Flaccid
13. Hamstrings
14. Hypertrophy
15. Insertion
16. Irritability
17. Isometric
18. Isotonic
19. Latissimus dorsi
20. Muscle fatigue
21. Muscle tone (tonus)
22. Origin
23. Paralysis
24. Pectoralis major
25. Posture
26. Quadriceps femoris
27. Rotators
28. Smooth muscle
29. Sphincters
30. Striated
31. Synovial fluid
32. Synovial membrane
33. Tendon
34. Tendon sheath

MUSCLE INJURIES

1. *MUSCLE STRAIN* — Caused by overworking certain muscles.
2. *TORN MUSCLE* — A tendon is ruptured or torn loose from its bone attachment.
3. *MUSCLE BRUISE* — Results from a blow. The muscle may be ruptured, allowing blood to escape around it; this causes a black and blue spot and painful swelling.
4. *MUSCLE CRAMP* — Generally caused by strenuous exercise without warming up properly. The muscle contracts but will not relax.

TYPES OF MUSCLES

1. *SKELETAL* — Striated or strips running across the fibers.
2. *SMOOTH* — Elongated, thin, spindle-shaped muscle fibers that are involuntary in action.
3. *CARDIAC* — The heart muscle.

LEARNING ACTIVITY PACKAGE 20

CATEGORY: The Circulatory System

FOCUS: Introduction to the structure and functions of the circulatory system

ACTIVITIES: Lecture/class discussion/demonstrations/individual and group projects/laboratory activities/audio-visual presentations/guest speakers/Extended Campus

OBJECTIVE: The student will be able to identify the components of the circulatory system and describe the general functions of each.

RATIONALE: The purpose of this unit is to acquaint the student with the components and functions of the circulatory system and the importance of this knowledge to the health care worker.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Atlas of Human Anatomy
   Body Structure and Functions
   The Human Body
   Modern Health
   Textbook of Anatomy and Physiology

2. Films:
   The Human Body: Circulatory System
      Coronet Instructional Films
   Heart and Circulation
   Heart Disease: Its Major Causes
   The Work of the Blood
      Encyclopedia Britannica Educational Corporation
   Circulation
      United World Films Inc.

3. Filmstrips:
   Heart and Blood Circulation
      Creative Education Inc.

Your Heart and Circulation
  Eyegate House, Inc.
Your Heart and Lungs
  Jam Dandy Organization
The Circulatory System
  Listening Library Inc.
The Work of the Blood
  McGraw-Hill Book Company
How the Heart Works
  Popular Science Publishing Company
The Circulatory System
  Society for Visual Education, Inc.
Circulatory Organs
  United World Films Inc.

4. Heart model and/or chart of the circulatory system

5. Overhead transparencies and handouts illustrating the circulatory system and listing its functions

6. Beef or pork heart

CONTENT OUTLINE:

A. Heart
   1. Chambers
   2. Valves
   3. Action

B. Blood Vessels
   1. Arteries
   2. Veins
   3. Capillaries

C. Blood
   1. Cells
   2. Plasma
   3. Platelets

D. Lymphatics
   1. Spleen
   2. Vessels
   3. Nodes

E. Blood Circulation

F. Health Occupations Related to the Circulatory System
   1. Allergy environmentalist
   2. Ambulance emergency technician
   3. Biomedical engineering technician
   4. Cardiovascular technician
   5. Child health associate
   6. Child health technician
   7. Circulation technician
   8. Community mental health worker
   9. Electronics technician
   10. Emergency health service worker
   11. Emergency room assistant
   12. Environmental health worker
   13. Genetic assistant
   14. Geriatric assistant
   15. Intravenous technician
   16. Medical service technologist
   17. Medication technician
   18. Mental health technician
   19. Mental health specialist
   20. Mental health supervisor
   21. Nurse/midwife
   22. Nursing home administrator associate
   23. Optometric technologist
   24. Pharmacy aide
   25. Podiatric assistant
   26. Radiopharmacist
   27. Rehabilitation home economist
   28. Renal dialysis technician
   29. Social rehabilitation service worker
   30. Veterinary medicine assistant

SUGGESTED LEARNING ACTIVITIES:

1. Using a heart model or chart of the circulatory system, demonstrate the circulation of blood through the heart. Have students return the demonstration using correct anatomical terminology.

2. Invite the school nurse to demonstrate the correct procedures for taking a patient's radial pulse and blood pressure. Ask the nurse to describe in basic terms what is taking place.

3. Visit the electrocardiograph (EKG) unit at a local hospital or clinic to observe the EKG machine and graphs.

4. Display a beef or pork heart to the class and have students observe its shape. Dissect the organ and have students examine the valves, chambers, and tissue.

5. Have students prepare a blood smear slide and observe it under the microscope.

6. Ask students to prepare a list of what they think the functions of the circulatory system might be. Then show an overhead transparency listing the functions of the blood; explain and discuss. Distribute diagrams of the circulatory system for students to label.

7. Visit a medical laboratory and ask the laboratory technicians to demonstrate typing and labeling blood, taking blood from a donor, and the use of the centrifuge.

8. View film(s)/filmstrip(s) pertaining to the heart and circulation; discuss.

ALTERNATE LEARNING ACTIVITIES:

1. Play a game by dividing students into two competing teams and asking questions on the circulatory system. Pass each question from one group to the other until correctly answered; each correct answer scores one point for the responding team. The team with the highest score at the end of the period wins. (This is a good game to play with vocabulary.)

2. Ask a nurse from an intensive care unit to discuss the cardiac care unit and specific duties of the personnel involved.

3. Have students trace a drop of blood from the heart through the circulatory system and back to the heart.

4. Have students make a survey in their classes to determine how many of their classmates know their own blood type.

5. Assign a group of students to research and prepare a panel presentation of Dr. William Harvey's discovery of the circulation of the blood.

SUGGESTED EVALUATION MEASURES:

1. Test students on information presented through lectures, guest speakers, and audio-visual presentations.
2. Distribute copies of the Suggested Vocabulary List and ask students to submit written definitions for evaluation.
3. Have students label a diagram of the heart.

SUGGESTED VOCABULARY LIST:

1. Agglutination
2. Aortic valve
3. Apex
4. Arteries
5. Arterioles
6. Blood pressure
7. Capillaries
8. Cross-matching
9. Diastole
10. Endocardium
11. Epicardium
12. Fibrin
13. Inferior vena cava
14. Left atrium
15. Left ventricle
16. Lymph
17. Lymph nodes
18. Mitral valve
19. Myocardium
20. Pericardium
21. Plasma
22. Platelets
23. Pulmonary artery
24. Pulmonary valve
25. Pulmonary vein
26. Red corpuscles
27. Right atrium
28. Right ventricle
29. Septum
30. Sphygmomanometer
31. Superior vena cava
32. Systole
33. Tricuspid valve
34. Veins
35. Venules
36. White corpuscles

LEARNING ACTIVITY PACKAGE 21

CATEGORY:	**The Respiratory System**
FOCUS:	**Introduction to the composition, capabilities, functions, and malfunctions of the respiratory system**
ACTIVITIES:	**Lecture/class discussion/demonstrations/individual and group projects/audio-visual presentations**
OBJECTIVE:	**The student will be able to describe the functions of the respiratory organs and the mechanics of breathing. The student will also be able to explain the difference between external and internal respiration.**
RATIONALE:	**The purpose of this unit is to provide the student with a basic understanding of the functions and structure of the respiratory system. This unit will also acquaint the student with the ability of the respiratory system to adapt to change.**

INSTRUCTIONAL AIDS (see pages 233-265):

1. **Texts:**
   Atlas of Human Anatomy
   Basic Science for Health Careers
   Body Structure and Functions
   The Human Body
   Human Physiology
   Modern Health
   Structure and Function of the Human Body
   Textbook of Anatomy and Physiology

2. **Films:**
   How the Respiratory System Functions
   The Human Throat
      Bray Studios, Inc.
   Healthy Lungs
   The Human Body: Respiratory System
      Coronet Instructional Films
   Mechanisms of Breathing
      Encyclopedia Britannica Educational Corporation

3. Filmstrips:
   How You Breathe
      Curriculum Materials Corporation
   Your Lungs and How You Breathe
      Eyegate House, Inc.
   The Respiratory System
      McGraw-Hill Book Company
   Human Respiration
      Popular Science Publishing Company
   Respiratory Organs
      United World Films Inc.

4. Overhead Transparencies (suggested for development):
   The Bronchi and Alveoli
   Diseases and Conditions of the Respiratory System
   The Functions of Respiration
   The Mechanics of Breathing
   The Nasal Cavity

5. Overhead transparency and handout of respiratory system diagram

6. Overhead transparencies and/or handouts on types and effects of air pollution (see page 195)

7. Toy balloon, rubber band, straight glass tube, bent glass tube, wide-mouthed gallon bottle, stopper, piece of rubber tubing

CONTENT OUTLINE:

A. Respiratory Organs
   1. Nasal cavity
   2. Pharynx
   3. Larynx
   4. Trachea
   5. Bronchi
   6. Lungs

B. Process of Respiration
   1. Thorax
   2. Types of respiration
      a. External
      b. Internal

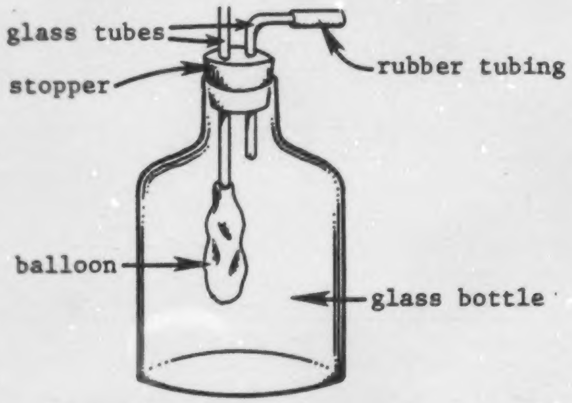
3. Regulation of respiration
    a. Depth
    b. Rate
4. Normal respiration

C. Health Occupations Related to the Respiratory System

SUGGESTED LEARNING ACTIVITIES:

1. Conduct a class experiment to illustrate the mechanics of breathing, using the following equipment:
    - toy balloon
    - rubber band
    - straight glass tube
    - bent glass tube
    - piece of rubber tubing on end of bent glass tube
    - fairly wide-mouthed gallon bottle with a tight-fitting stopper

    The stopper should have two holes the size of the two glass tubes so that the tubes will fit tightly. Push the tubes through the stopper. Place the balloon on the end of the straight tube and secure it with a rubber band. Position the balloon so that it can inflate inside the bottle. Put the stopper in place and suck on the bent tube to draw air out of the bottle. Air from the outside will be drawn into the balloon, causing it to inflate.



2. As a class project, keep a record of colds occurring among the students and the duration of each. Also keep a record of the possible cause of each cold, treatment used, and inconvenience caused.

3. Have the class plan and conduct a mock radio broadcast with the object of motivating listeners to follow recommended procedures for preventing the spreading of colds and other respiratory infections and for building up resistance to infection. Tape-record student "broadcast" if desired.

4. Ask students to write a short paragraph on each of the following:

    - Why mouth breathing is so uncomfortable
    - How vigorous physical activity helps to increase stamina and endurance
    - Why getting rid of ragweed is a great public service
    - Why it is common sense to do what you can to avoid colds and to take care of yourself when you have a cold
    - Factors in modern living which may be responsible for the increase in the number of cases of emphysema and lung cancer

5. Show and discuss an overhead transparency displaying a diagram of the respiratory system. Distribute diagram handouts for students to label.

6. In a laboratory setting, compare and discuss the oxygen, carbon dioxide, and nitrogen content of inspired and expired air.

7. Using overhead transparencies and/or handouts (see page 195), lead a class discussion on air pollution and what is being done about it, both nationwide and in your own community.

ALTERNATE LEARNING ACTIVITIES:

1. View film(s)/filmstrip(s) on breathing and the respiratory system; discuss.

2. Discuss the relationship between external and internal respiration.

3. Lead a class discussion about how air pollution relates to normal respiration.

SUGGESTED EVALUATION MEASURES:

1. Test students on information presented through lectures, class discussion, demonstrations, and audio-visual presentations.
2. Distribute copies of the Suggested Vocabulary List and ask students to submit written definitions for evaluation.

SUGGESTED VOCABULARY LIST:

1. Alveoli
2. Bronchi
3. Bronchial tree
4. Bronchioles
5. Ciliated
6. Concha
7. Diaphragm
8. Emphysema
9. Epiglottis
10. External respiration
11. Internal respiration
12. Larynx
13. Nasal cavity
14. Pharynx
15. Pleura
16. Pulmonary
17. Septum
18. Sinus
19. Trachea
20. Vocal cords

TYPES OF AIR POLLUTION:

1. *SMOG* — Smoke and fog (California)
2. *SMAZE* — Smoke and haze (New York)
3. *SMUST* — Smoke and dust (Texas)

CAUSES OF AIR POLLUTION:

1. Increases in population
2. Expansion of industry
3. Power generation factors
4. Increased number of homes
5. Number of automobiles
6. Weather and temperature conditions

EFFECTS OF AIR POLLUTION:

1. Interference with visibility
2. Soiling of clothes and materials
3. Crop (plant) damage
4. Respiratory ailments (lung cancer, chronic bronchitis, emphysema)
5. Irritability and emotional toll
6. Noxious odors
7. Eye and throat irritation
8. Other related diseases (cancer of the stomach and esophagus, arteriosclerosis, cardiovascular diseases)

LEARNING ACTIVITY PACKAGE 22

CATEGORY:	The Digestive System
FOCUS:	Introduction to the digestive system and its components and functions
ACTIVITIES:	Lecture/class discussion/student projects/guest speakers/audio-visual presentations/Extended Campus
OBJECTIVE:	The student will be able to identify the various parts of the digestive system and the functions of each part.
RATIONALE:	The purpose of this unit is to acquaint the student with the components and functions of the digestive system.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Health for Life
   Human Physiology
   Modern Health

2. Films:
   The Human Body: Digestive System
      Coronet Instructional Films
   Digestion of Foods
      Encyclopedia Britannica Educational Corporation
   Human Digestion
      McGraw-Hill Book Company

3. Filmstrips:
   Your Food and Digestion
      Jam Dandy Organization
   The Digestive System
      Listening Library Inc.
   What Is Digestion?
      McGraw-Hill Book Company
   Digestive Organs
      United World Films Inc.

4. Overhead Transparencies (suggested for development):
   Ailments of the Digestive Tract
   Ailments of the Excretory System
   The Digestive Tract—Organs
   Functions of the Liver

CONTENT OUTLINE:

A. Functions of the Digestive System
   1. Digestion
   2. Absorption

B. Components of the Digestive System
   1. Alimentary canal
   2. Accessory organs

C. Alimentary Canal
   1. Mouth or oral cavity
      a. Teeth
      b. Tongue
      c. Salivary glands
   2. Swallow tubes and accessories
      a. Pharynx (throat)
      b. Uvula
      c. Epiglottis
      d. Esophagus
   3. Stomach
      a. Cardiac valve
      b. Pyloric valve
      c. Rugae
   4. Small intestine
      a. Duodenum
      b. Jejunum
      c. Ileum
   5. Large intestine
      a. Ileocecal valve
      b. Cecum
      c. Appendix
      d. Colon
      e. Rectum
      f. Anal canal
      g. Sphincter

D. Accessory Organs
    1. Liver
    2. Gallbladder
    3. Pancreas

E. Health Occupations Related to the Digestive System

SUGGESTED LEARNING ACTIVITIES:

1. Using an overhead transparency displaying a diagram of the digestive tract, discuss the gastrointestinal system, stressing its components, functions, and importance.

2. Ask a dentist, dental hygienist, dental assistant, or nurse to discuss and/or demonstrate principles of oral hygiene.

3. Invite a speaker from an X-ray unit or medical laboratory to discuss the various tests ordered by physicians which relate to the digestive system. Ask the speaker to show X-rays of the stomach, gallbladder, liver, colon, etc. Have him/her explain how departments such as X-ray, the medical laboratory, and nursing combine their efforts to carry out physicians' orders for the benefit of the client.

4. Have students trace the path of an undigestible object from the mouth through all parts of the digestive tract and out of the body.

ALTERNATE LEARNING ACTIVITIES:

1. Arrange a field trip to a dentist's office. Ask the dentist, hygienist, or assistant to discuss the proper care of the teeth.

2. Have students prepare a short written report on what is meant by the statement "The liver is an accessory organ."

SUGGESTED EVALUATION MEASURES:

1. Have students label a diagram of the digestive system.

2. Test students on information presented through lectures, guest speakers, and audio-visual presentations.

3. Distribute copies of the Suggested Vocabulary List and ask students to submit written definitions for evaluation.

SUGGESTED VOCABULARY LIST:

1. Ascending colon
2. Canine teeth
3. Cardiac sphincter
4. Caries
5. Cecum
6. Chyme
7. Crown of tooth
8. Descending colon
9. Duodenum
10. Esophagus
11. Gallbladder
12. Ileum
13. Incisor teeth
14. Jejunum
15. Liver
16. Molar teeth
17. Mouth
18. Neck of tooth
19. Pancreas
20. Parotid gland
21. Peristalsis
22. Premolar teeth
23. Pyloric sphincter
24. Rectum
25. Rooth of tooth
26. Salivary gland
27. Sigmoid colon
28. Sublingual gland
29. Submaxillary gland
30. Transverse colon

LEARNING ACTIVITY PACKAGE 23

CATEGORY: The Urinary System

FOCUS: The process of waste removal from the body through the urinary system

ACTIVITIES: Lecture/class discussion/demonstrations/laboratory activities/guest speakers

OBJECTIVE: The student will be able to explain the process of removal of waste products from the blood and the body through the urinary system.

RATIONALE: The purpose of this unit is to provide the student with a basic knowledge of the normal makeup of the urinary system.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Atlas of Human Anatomy
   Body Structure and Functions
   Health Assistant
   The Human Body
   Human Physiology
   Modern Health
   Textbook of Anatomy and Physiology

2. Overhead Transparencies (suggested for development):
   Kidney Diseases
   The Urinary System

3. Handout of urinary system diagram

4. Beef kidney

5. Microscope and slides

CONTENT OUTLINE:

A. Kidneys
   1. Location
   2. Structure
   3. Functions

B. Ureters
   1. Structure
   2. Functions

C. Bladder
   1. Structure
   2. Functions

D. Urethra
   1. Structure
   2. Functions

E. Normal Constituents of Urine

F. Health Occupations Related to the Urinary System

SUGGESTED LEARNING ACTIVITIES:

1. Show an overhead transparency displaying a diagram of the urinary system. Distribute handouts of the diagram for students to label. Discuss each part of the system.

2. Invite a laboratory technician to speak to the class about the purposes of the urinalysis (shows health of the kidneys and shows abnormal condition of other parts of the body).

3. Have students examine a beef kidney and identify its parts. Have students make slides for microscopic examination and identify cells and tissues.

4. Assist students in performing routine tests for urine content (PH, blood, sugar, ketones, protein, bile, specific quantity).

5. Ask an X-ray technician to display X-rays of the different organs of the urinary system and compare the relationships between normal and abnormal organs.

ALTERNATE LEARNING ACTIVITIES:

1. Discuss the discharge of water, food, and waste products from the blood into a kidney capsule and the reabsorption of essential materials from the kidney tubules.

2. Discuss how the kidney functions as a filter.

SUGGESTED EVALUATION MEASURES:

1. Have students label a diagram of the urinary system.

2. Test students on information presented through lectures, laboratory activities, and guest speakers.

3. Distribute copies of the Suggested Vocabulary List and ask students to submit written definitions for evaluation.

4. Have students write an essay on the kidneys and how they act as filters.

SUGGESTED VOCABULARY LIST:

1. Acidosis
2. Bladder
3. Bowman's capsule
4. Cortex
5. Elimination
6. Excretion
7. Excretory mechanisms
8. Glomerulus
9. Kidneys
10. Medulla
11. Orifice
12. Pelvis
13. Penis
14. Renal
15. Tubule
16. Ureter
17. Urethra
18. Urine

LEARNING ACTIVITY PACKAGE 24

CATEGORY:	The Nervous System
FOCUS:	Introduction to the nervous system and its components and functions
ACTIVITIES:	Lecture/class discussion/demonstrations/individual and group projects/audio-visual presentations/guest speakers
OBJECTIVE:	The student will be able to identify the types of nerves, describe the divisions and functions of the nervous system, and identify the structures of the brain. The student will also be able to list the basic parts of the eye, ear, nose, and tongue and discuss ways in which the body receives sensory information.
RATIONALE:	The purpose of this unit is to acquaint the student with the basic structure of the nervous system and the functions of the different sense organs of the body.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Atlas of Human Anatomy
   Body Structure and Functions
   The Human Body
   Human Physiology
   Modern Health
   The Nervous System: The Inner Network
   Structure and Function of the Human Body
   Textbook of Anatomy and Physiology

2. Films:
   Our Senses: What They Do for Us
      Coronet Instructional Films
   The Ears and Hearing
   The Eyes and Their Care
   Fundamentals of the Nervous System
   The Human Brain
   The Nervous System
      Encyclopedia Britannica Educational Corporation

Your Eyes
McGraw-Hill Book Company

3. Filmstrips:
Care of Eyes and Ears
Your Body's Message System
Curriculum Materials Corporation
Your Ears and Hearing
Eyegate House, Inc.
How Your Ears Work
Jam Dandy Organization
The Nervous System
McGraw-Hill Book Company
The Nervous System
Society for Visual Education, Inc.
Smell and Hearing
Touch, Taste, and Vision
United World Films Inc.

4. Overhead Transparencies (suggested for development):
Areas of the Cerebrum
The Autonomic Nervous System
The Brain
The Ear
The Eye
The Nervous System
Neurons
The Reflex Arc
The Taste Buds

5. Handouts diagramming the nervous system, autonomic nervous system, brain, sensory areas of the cerebrum, and sense organs

6. Frog legs

7. Calf or sheep's brain

8. Model of the human body

CONTENT OUTLINE:

A. Function of the Nervous System as the Coordinating System of the Body

B. Divisions of the Nervous System
  1. Central nervous system
    a. Brain
    b. Spinal cord
  2. Peripheral nervous system
    a. Cranial nerves
    b. Spinal nerves
  3. Autonomic nervous system

C. Nerves
  1. Nerve tissue
    a. Nerve cells (neurons)
    b. Nerve fibers
      (1) Axons
      (2) Dendrites
  2. Types of nerves
    a. Afferent
    b. Efferent

D. Brain
  1. Cerebrum
  2. Midbrain
  3. Pons
  4. Medulla
  5. Cerebellum

E. Spinal Cord
  1. Structure
  2. Functions

F. Coverings of Brain and Spinal Cord (Meninges)

G. Cerebrospinal Fluid

H. Cranial Nerves
  1. General functions
  2. Olfactory
  3. Optic
  4. Oculomotor
  5. Trochlear
  6. Trigeminal
  7. Abducent
  8. Facial
  9. Acoustic
  10. Glossopharyngeal
  11. Vagus
  12. Accessory
  13. Hypoglossal

I. Spinal Nerves
  1. Location
  2. Functions
  3. Branches
    a. Cervical
    b. Brachial
    c. Lumbosacral

J. Autonomic Nervous System
  1. Functions
  2. Divisions
    a. Sympathetic nervous system
    b. Parasympathetic nervous system

K. The Sense Organs
  1. Eye
    a. Optic nerve
    b. Seeing
  2. Ear
    a. Auditory nerve
    b. Hearing
  3. Nose
    a. Olfactory nerve
    b. Smelling
  4. Tongue
    a. Glossopharyngeal nerve
    b. Tasting

L. The Eye—Purpose and Parts
  1. Protection
    a. Orbits
    b. Lids
    c. Eyelashes
    d. Tears
    e. Epithelial sac
  2. Coats
    a. Sclera
    b. Choroid
    c. Retina
  3. Light path
    a. Cornea
    b. Aqueous humor
    c. Lens
    d. Vitreous body
  4. Muscles
    a. Iris
    b. Ciliary

5. Optic nerve
6. Lacrimal gland

M. The Ear—Purpose and Parts
    1. Divisions
        a. External
        b. Middle
        c. Internal
    2. External ear (pathway for sound)
        a. Pinna
        b. Auditory canal
        c. Tympanic membrane
    3. Middle ear (amplifier)
        a. Auditory ossicles
            (1) Malleus
            (2) Incus
            (3) Stapes
    4. Internal ear (hearing, equilibrium)
        a. Vestibule
        b. Cochlea
        c. Semicircular canal

N. Health Occupations Related to the Nervous System

SUGGESTED LEARNING ACTIVITIES:

1. Show overhead transparencies displaying diagrams of the nervous system and autonomic nervous system. Distribute diagram handouts for students to label. Discuss the functions of each system.

2. Obtain the legs of a freshly-killed frog and demonstrate chemical and electrical reactions in a laboratory setting.

3. Show overhead transparencies displaying diagrams of the brain and the sensory areas of the cerebrum. Distribute diagram handouts for students to label. Discuss.

4. Show overhead transparencies displaying diagrams of the different sense organs. Distribute diagram handouts for students to label. Discuss.

5. Present a lecture and lead a class discussion on the reflex arc. Demonstrate by having students touch objects which are very hot or very cold.

6. View film(s)/filmstrip(s) on the nervous system; discuss.

7. Assign a group of students to prepare a panel presentation on the experiments conducted by Ivan Pavlov in his research on conditioned reflexes. After the presentation, lead a class discussion about Pavlov's contributions to our understanding of habit formation.

8. Have students observe the shape, hemispheres, convolutions, and lobes of a calf or sheep's brain. Identify the different parts in relation to the human brain.

9. Carefully peel off the meninges or outer coverings of the brain used in Activity #8 to observe the grey matter. Make a cut in the grey matter and separate the edges to show the white underneath.

10. Ask an optometrist or ophthalmologist to demonstrate and explain the application of various sensory tests (audiometer, tonometer, eyechart, etc.).

11. Individually or in small groups, have students plan and carry out experiments to illustrate the senses of touch and smell. Projects might include:
    - Various materials to touch and identify while blindfolded
    - Various materials to smell and identify while blindfolded

12. Have students make a list of the relationships of the special sensory systems, based on their current knowledge. Then explain how this information is useful in various health care careers.

ALTERNATE LEARNING ACTIVITIES:

1. View film(s)/filmstrip(s) on the sense organs; discuss.

2. Using a three-dimensional model of the human body, remove and observe the different parts of the nervous system.

SUGGESTED EVALUATION MEASURES:

1. Test students on information presented through lectures, class discussion, demonstrations, guest speakers, and audio-visual presentations.

2. Have students label the components of the various sense organs.

3. Distribute copies of the Suggested Vocabulary List and ask students to submit written definitions for evaluation.

4. Assign and evaluate a written or oral report on disorders of the nervous system.

SUGGESTED VOCABULARY LIST:

1. Aqueous humor
2. Auditory nerve
3. Autonomic nervous system
4. Axon
5. Basal ganglia
6. Cerebellum
7. Cerebral cortex
8. Cerebrum
9. Choroid coat
10. Cochlea
11. Cornea
12. Cyton (cell body)
13. Dendrite
14. Equilibrium
15. Eustachian tube
16. Glossopharyngeal nerve
17. Hypothalmus
18. Incus (anvil)
19. Inner ear
20. Iris
21. Lens
22. Malleus (hammer)
23. Medulla
24. Midbrain
25. Middle ear
26. Motor neuron (efferent)
27. Myelin sheath
28. Neuron
29. Olfactory nerve
30. Optic nerve
31. Outer ear
32. Palate
33. Parasympathetic system
34. Peripheral nervous system
35. Pons
36. Pupil
37. Reflex
38. Reflex arc
39. Retina
40. Rods and cones
41. Sclerotic coat
42. Semicircular canal
43. Sensory neuron (afferent)
44. Sinus
45. Special senses
46. Stapes (stirrup)
47. Sympathetic system
48. Synapse
49. Taste buds
50. Thalmus
51. Tonsil
52. Vitreous body

LEARNING ACTIVITY PACKAGE 25

CATEGORY:	The Endocrine System
FOCUS:	Introduction to the endocrine system: the chemical regulators of body functions
ACTIVITIES:	Lecture/class discussion/individual and group projects/guest speaker/audio-visual presentations
OBJECTIVE:	The student will be able to identify the endocrine glands and describe their functions. The student will also be able to identify the hormone secretions of the various glands.
RATIONALE:	The purpose of this unit is to provide the student with a basic knowledge of the endocrine system and its components, as well as an understanding of the body processes controlled by the hormone(s) secreted by each endocrine gland.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Atlas of Human Anatomy
   Human Physiology
   Modern Health
   Structure and Function of the Human Body
   Textbook of Anatomy and Physiology

2. Films:
   Kidneys, Ureters, and Bladder
      Bray Studios, Inc.
   Endocrine Glands
      Encyclopedia Britannica Educational Corporation
   Endocrine Glands: How They Affect You
      McGraw-Hill Book Company
   Endocrine Glands
      Moreland-Latch Ford Productions Ltd.
   Functions of the Body
      United World Films Inc.

3. Filmstrips:
   The Endocrine System
   How Hormones Control the Body
      McGraw-Hill Book Company
   The Glandular System
      Society for Visual Education, Inc.

4. Overhead Transparencies (suggested for development):
   Chart of the Endocrine Glands, the Hormones They Secrete, and the Body Processes They Control
   Diagram of the Endocrine System

5. Handout of endocrine system diagram

CONTENT OUTLINE:

A. Secretions
   1. External
   2. Internal

B. Glands
   1. Exocrine
   2. Endocrine

C. Hormones

D. Thyroid Gland
   1. Location
   2. Functions

E. Parathyroid Gland
   1. Location
   2. Functions

F. Pituitary Gland
   1. Location
   2. Functions

G. Pancreas (Islands of Langerhans)
   1. Location
   2. Functions

H. Adrenal Glands
    1. Location
    2. Functions

I. Thymus
    1. Location
    2. Functions

J. Pineal Gland
    1. Location
    2. Functions

K. Sex Glands
    1. Ovaries
        a. Location
        b. Functions
    2. Testes
        a. Location
        b. Functions

L. Health Occupations Related to the Endocrine System

SUGGESTED LEARNING ACTIVITIES:

1. Take students to the library to do research by using the different resources available, including the encyclopedia.

2. Show an overhead transparency displaying a diagram of the endocrine system. Distribute diagram handouts for students to label. Discuss the location of each gland.

3. Show film(s)/filmstrip(s) on the endocrine glands; discuss.

4. Have students list the endocrine glands and their hormone secretions in the form of a chart.

5. Ask a pharmacist to speak to the class about the history of insulin and related oral medications.

6. After a class discussion of the endocrine system and an explanation of how the glands influence many aspects of body processes as well as growth and development, divide class into small groups. Ask each group to prepare an oral presentation on one endocrine gland and its relationship to a bodily function or process. Have each group develop some type of visual aid to accompany its presentation.

SUGGESTED EVALUATION MEASURES:

1. Test students on information presented through lectures, class discussion, guest speakers, and audio-visual presentations.

2. Have students label a diagram of the endocrine glands.

3. Distribute copies of the Suggested Vocabulary List and ask students to submit written definitions for evaluation.

4. Evaluate students' panel presentations.

SUGGESTED VOCABULARY LIST:

1. Adrenal
2. Endocrine
3. Epinephrine
4. Estrogen
5. Hormone
6. Insulin
7. Islands of Langerhans
8. Ovary
9. Pancreas
10. Parathyroid
11. Pineal
12. Pituitary
13. Progesterone
14. Testis
15. Testosterone
16. Thymus
17. Thyroid
18. Thyroxine

LEARNING ACTIVITY PACKAGE 26

CATEGORY:	Psychology of Illness
FOCUS:	Behavior and attitudes of individuals experiencing illness
ACTIVITIES:	Lecture/class discussion/individual and group projects/guest speakers/audio-visual presentations
OBJECTIVE:	The student will be able to discuss basic emotional reactions to illness, especially as they relate to life style. The student will also be able to discuss the role of the health occupations worker in helping the patient adjust to illness or disability.
RATIONALE:	The purpose of this unit is to acquaint the student with the psychological aspects of illness and the patient's reactions to illness. Furthermore, this unit will develop the student's understanding of reactions to pain, the concept of death, and other factors which affect relationships between clients and the health care worker.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Death and Dying
   Developing the Art of Understanding: A Guide for Nursing Students
   Modern Health
   Survey of Careers in Health Services and Occupations Programs in California Secondary Schools
   Teaching Guide for Social Service Occupations
   Understanding Human Behavior: A Guide for Health Workers

2. Articles:
   "Grief and Grieving"
   "Let's Talk About Death"
   "Pain Wears Many Faces"
   "A Patient's Concern with Death"
   "The Psychology of Pain"
   "Talking to Patients About Death"

3. Films:
   Nursing—An Adventure in Learning
      American Journal of Nursing Company
   The Occupational Therapy Story: Making a Difference
      American Occupational Therapy Association
   Armed Forces Medical Specialists
      Armed Forces Medical Specialists
   On Becoming a Nurse Psychotherapist
      University of California

4. Filmstrips:
   Style of Life
      Educational Activities Inc.
   Lifestyles
      Listening Library Inc.

5. Cassettes:
   Nurse
   Nurse Aide
   Occupational Therapist
   Psychiatrist
   Psychologist
      Eyegate House, Inc.
   The Mental Health Worker
   The Social Service Aide
      Multi-Media Productions, Inc.
   Living with Dying
      Spenco Health Education Products

6. Overhead Transparencies (suggested for development):
   The Importance of the Physician and the Nursing Team
   The Mental Health Team
   The Social Worker

CONTENT OUTLINE:

A. Basic Emotional Aspects of Illness
   1. Fear
      a. Of pain
      b. Of disability
      c. Of death

2. Worry
    a. About finances
    b. About job
    c. About family problems

B. Loss of Self-Confidence

C. Embarrassment

D. Boredom

E. Pain
    1. Perception of pain
    2. Factors influencing psychological response to pain
    3. Treating pain

F. Death
    1. Concept of death
    2. The dying patient
    3. Final stages of illness
    4. Patient's emotional needs
    5. Patient's family

G. Natural Reactions to Illness
    1. Acceptance of diagnosis
    2. Acceptance of illness
    3. Acceptance of prognosis of illness
    4. Acceptance of limitations imposed by illness

H. Reactions of Individuals to Surgery
    1. Preparation period
    2. Early post-operative period
    3. Post-operative adaptations

I. Understanding the Elderly
    1. As a patient in the hospital
    2. Health teaching
    3. Emotional problems of aging

J. The Art of Understanding
    1. Understanding people
    2. Understanding cultural influence
    3. Understanding the patient's religious beliefs and practical implications
    4. Understanding the patient's point of view
    5. The power of understanding

K. Health Occupations Related to the Psychology of Illness

1. Educational therapist
2. Hospital chaplain
3. Mental health technician
4. Music therapist
5. Nurse
6. Nurse's aide
7. Nursing home administrator
8. Occupational therapist
9. Occupational therapy aide
10. Physical therapist
11. Psychiatric nurse
12. Psychiatrist
13. Psychologist
14. Rehabilitation nurse
15. Rehabilitation therapist
16. Social worker

SUGGESTED LEARNING ACTIVITIES:

1. Survey the class to determine how many students have been hospitalized. Ask these students to discuss the following:
   - Were they afraid? If so, what were some of their concerns?
   - Were they treated with concern by hospital personnel? Were procedures explained to them?
   - Were their parents allowed to stay with them?
   - What was their most memorable experience while hospitalized?

2. Lead a class discussion on each of the following hypothetical situations:
   - A small child is hospitalized for a tonsillectomy. What could be done to make the child feel more at ease?
   - A 30-year-old divorced woman with two pre-school children is admitted to the hospital for surgery. What kind of personal worries might she have?
   - A 15-year-old boy has recently lost his right hand in a corn picker. He was a very good art student and played center for the basketball team. What might be done to help him adjust to this loss and find some new interests?

3. Ask an occupational therapist to speak to the class about rehabilitation procedures.

4. Invite a priest, minister, or rabbi to discuss the religious aspects of illness and the special needs of the terminally ill individual.

ALTERNATE LEARNING ACTIVITIES:

1. Show one or more of the films and filmstrips listed on page 215; discuss.

2. Play one or more of the cassettes listed on page 215; discuss.

3. Discuss the role of the mental health team in helping patients adjust to illness and/or disability.

4. Present a lecture and lead a class discussion on social workers and their contribution to the patient and family (see *Modern Health*).

5. Individually or in small groups, have students prepare written or oral reports on the various health care teams and related health careers.

SUGGESTED EVALUATION MEASURES:

1. Distribute copies of the Suggested Vocabulary List and ask students to submit written definitions for evaluation.

2. Test students on information presented through lectures, class discussion, guest speakers, and audio-visual presentations.

SUGGESTED VOCABULARY LIST:

1. Beliefs
2. Boredom
3. Death
4. Diagnosis
5. Disability
6. Embarrassment
7. Emotions
8. Fear
9. Limitations
10. Pain
11. Post-operative
12. Prognosis
13. Reaction
14. Self-confidence

LEARNING ACTIVITY PACKAGE 27

CATEGORY: The Patient and the Patient's Environment

FOCUS: The patient's emotional and physical environment

ACTIVITIES: Lecture/class discussion/individual and group projects/guest speakers/Extended Campus

OBJECTIVE: The student will be able to discuss environmental factors that can affect patients' behavior and will be able to list key elements in maintaining a clean, safe, and comfortable environment for the patient. The student will also be able to identify the individual's rights as a patient.

RATIONALE: The purpose of this unit is to develop the student's sensitivity to the effects illness can have upon the patient's personality and how the health care worker can understand and adapt to these personality changes. The student will also develop an awareness of the importance of maintaining a clean, safe, and comfortable environment for the patient.

INSTRUCTIONAL AIDS (see pages 233-265):

1. Texts:
   Being a Nursing Aide (Chapters 1, 2, and 4)
   Introduction to Nursing Care
   Nursing Skills for Allied Health Services (pages 27-36)
   Principles and Practices of Nursing Care

2. Pamphlets:
   The Patient's Bill of Rights
   A Patient's Bill of Rights for Long-Term Care Facilities

3. Extended Campus Report form (see page 225)

CONTENT OUTLINE:

A. Personality Development

B. Needs of Patients
   1. Physical
   2. Emotional

C. The Health Care Worker's Responbilities
   1. To meet patient's needs
   2. To meet family's needs

D. Health Care Facilities
   1. Hospitals and nursing homes
      a. Types of patients
      b. Special needs of patients
         (1) Pediatric patient
         (2) Geriatric patient
         (3) Obstetric patient
         (4) Surgical/medical patient
      c. Physical structure
         (1) Patients' rooms and equipment
         (2) Safety measures
   2. Offices
      a. Types of offices
         (1) Doctor
         (2) Dentist
         (3) Clinic
      b. Physical structure
         (1) Reception area
         (2) Patient examining rooms
         (3) Clerical/bookkeeping area

E. Maintaining the Patient's Environment
   1. Temperature control
   2. Humidity control
   3. Noise control
   4. Odor control
   5. Decorating

F. Health Occupations Related to the Patient's Environment
   1. Maintenance crew
   2. Housekeeping staff
   3. Nursing staff
   4. Engineers

SUGGESTED LEARNING ACTIVITIES:

1. Present a lecture and lead a class discussion aimed at enhancing students' understanding of patients as people. (See Learning Activity Package 26.)

2. Lead a class discussion on possible reactions to contact with a doctor's office, a dental office, hospital admissions, nursing home admissions, and clinic visits. (Include fears, anxieties, financial problems, family problems, religious beliefs, and the possible effects each of these might have upon the patient.)

3. Referring to the pamphlet *The Patient's Bill of Rights*, lead a class discussion on the patient's right to release his/her fears and anxieties and ways in which the health care worker can help the patient.

4. Have students role-play patient/health care worker situations, demonstrating anxieties and the relief of anxieties. Include situations involving nursing home residents, patients having laboratory work done, patients in physical therapy, patients facing surgery, and patients in a doctor's office.

5. Organize a panel discussion on how to help the patient's family. In preparation for the panel discussion, have students interview health care workers about actual situations involving patients and their families.

6. Present a lecture on the types of patients in hospitals and nursing homes. Include pediatric, geriatric, obstetric, medical, surgical, and rehabilitation patients. Discuss the special needs of each type of patient.

7. Individually or in small groups, have students prepare written or oral reports on one of the different types of patients, including special needs, special equipment, and any special care necessary.

8. Invite a health care worker who provides specialized care for one specific type of patient to speak to the class about his/her work, training required, and employment opportunities.

9. Review safety skills. (See Learning Activity Package 7.)

10. Visit a nursing home to observe the patients' environment. Have students look for safety features in use and for any inadequacies in safety provisions. Students should visit a patient's room, noting the arrangement of furniture and equipment.

11. Visit a local special health care facility such as a pediatric or psychiatric unit. Students should be made aware of the special features of the environment and should become acquainted with the types of equipment used (for example, patient beds, bedside rails, bedside stands, overhead trays, wheelchairs, examining tables). Have students make special note of safety devices.

12. Present a lecture on the importance of proper temperature and humidity control and the need for noise and odor control in the patient's environment. Include a discussion on the importance of decorating the environment.

13. Have students prepare a written report on health care workers who help to maintain the patient's environment for both safety and comfort, including the health care workers' responsibilities and the type of education required.
    - Maintenance crew
    - Housekeeping staff
    - Nursing staff
    - Engineers

ALTERNATE LEARNING ACTIVITIES:

1. Invite a social worker to speak to the class about the effects of illness on patients and to offer some suggestions on how the health care worker can be of assistance.

2. Have students interview several friends of different ages to learn their reactions to past experiences with health care facilities and health care workers. Examples of questions might be:
    - Have you ever been a patient in a hospital?
    - What do you remember most about the experience?
    - How often do you visit your family doctor?
    - What do you like most about your visits?

3. If possible, involve students in a community clinic (such as a diabetic clinic, immunization clinic, blood pressure clinic, or blood donor clinic) to help develop their understanding of the patient's needs and the health care worker's responsibilities.

4. Have students check the room temperature in their various classes. If the rooms are too cold or too warm, have them ask the teacher how the extreme in temperature affects the students.

SUGGESTED EVALUATION MEASURES:

1. Have students list factors that may affect the way a patient reacts to a medical situation.

2. Have students list ways in which patients release fears and anxieties.

3. Have students define:
   - Pediatric patient
   - Geriatric patient
   - Obstetric patient
   - Medical patient
   - Surgical patient
   - Rehabilitation patient

4. Have students list safety devices seen on patients' furniture.

5. Assign and evaluate a written report on the importance of proper room temperature, proper humidity, and noise control.

6. Have students list health care workers who are responsible for the patient's environment.

7. Have students submit Extended Campus Reports on health care facilities visited (see Extended Campus Report form on page 225).

EXTENDED CAMPUS REPORT

Health care facility visited: ______________________________

Safety features: ______________________________

____

____

Hazardous conditions: ______________________________

____

____

Furniture and equipment in patient's room: ______________________________

____

____

Safety features on patient's furniture: ______________________________

____

____

Decor of room and halls: ______________________________

____

____

Was there an amiable feeling in the health care facility? ______________

____

____

Did you enjoy your experience? ______________________________

LEARNING ACTIVITY PACKAGE 28

CATEGORY:	Communication Skills
FOCUS:	The importance of the health care worker's ability to apply communication skills
ACTIVITIES:	Lecture/class discussion/demonstrations/group activities/audio-visual presentations/role-playing
OBJECTIVE:	The student will demonstrate good communication skills by displaying cooperation, tact, courtesy, respect, dependability, trustworthiness, acceptance of authority, and tolerance when working for and with people.
RATIONALE:	The purpose of this unit is to develop the student's awareness that good communication skills are essential to the effective performance of the health care team member.

INSTRUCTIONAL AIDS (see pages 233-265):

1. **Texts:**
   Being a Nursing Aid
   Careers in Hospital Administration, Maintenance, and Medical Secretarial Services
   Health Technicians and Career Opportunities
   The Hospital Ward Clerk
   Your Career in Health Care

2. **Pamphlets:**
   Careers in Secretarial Science
   Jobs for Which A College Education Is Usually Required
   Jobs for Which a High School Education Is Generally Required
   Jobs for Which Junior College, Technical Institute or Other Specialized Training Is Usually Required
   Medical Records
   Your Career Opportunities in Hospitals

3. **Films:**
   Faith, Facts, and Fingertips
   American Association of Medical Record Librarians

Developing Friendships
Developing Self-Reliance
Home Nursing Fundamentals
Making Your Own Decisions
Planning for Success
    Coronet Instructional Films

4. Filmstrips:
   Hospital Job Opportunities
      American Medical Record Association
   Cooperating with Others
      Curriculum Materials Corporation
   Basic Office Practices and Procedures
      Eyegate House, Inc.
   Effective Listening
   Effective Speaking
   Non-Verbal Barriers to Communication
   Orientation
   The Receiving Process
   The Sending Process
   Verbal Barriers to Communication
      Trainex Corporation

5. Cassettes:
   Medical Secretary
      Charles W. Clark Company
   The Art of Listening
      Listening Library Inc.

6. Message for Suggested Learning Activity #3 (see page 232)

7. Illustraining containing numerous objects or activities

8. Teletrainer (available from local telephone company representative)

CONTENT OUTLINE:

A. Introduction
   1. Definition of communication
   2. Role of communication in the health care field

B. Types of Communication
   1. Verbal
   2. Non-verbal

C. Effective Speaking

D. Effective Listening

E. Effective Receiving

F. Barriers to Communication
  1. Verbal
  2. Non-verbal

G. Methods of Communication
  1. Telephone
    a. Rules of telephone courtesy
    b. Answering the telephone
    c. Taking and delivering messages
  2. Intercommunications system (intercom)
  3. Automation and the computer
  4. Bulletin board

H. Personal Qualities for Communication
  1. Courtesy
  2. General mood
  3. Trustworthiness
  4. Tact
  5. Tolerance

I. Health Occupations Related to Communication Skills
  1. Admissions clerk
  2. Director of volunteer services
  3. Health office worker
  4. Medical librarian
  5. Medical records administrator
  6. Medical records librarian
  7. Medical records clerk
  8. Medical secretary
  9. Medical transcriptionist
  10. Nurse's aide
  11. Personnel director
  12. Public health educator
  13. Public health statistician
  14. Public relations director
  15. Science writer
  16. Social worker
  17. Ward clerk

SUGGESTED LEARNING ACTIVITIES:

1. Show one or more of the films and filmstrips listed on pages 226-227; discuss.

2. Select a situation in which students communicate with each other informally. Through "brainstorming," develop a list of all the types of communication used in that situation.

3. Have six to eight students participate in a demonstration to illustrate how information may be changed, rearranged, or lost as a message is passed from one person to another. Select a message which is fairly complex and takes at least one minute to repeat (see suggested message on page 232).

   - Students 1 and 2 should be located in a room separate from the rest of the group.
   - Have Student 1 verbally give a message to Student 2. Record the message as it is given.
   - Have Student 1 leave the room. Call Student 3 into the room to receive the message from Student 2.
   - Have Student 2 verbally give the message to Student 3. Record the message as it is given.
   - Repeat this procedure until the message has been relayed to each student involved in the demonstration.
   - Play back the recorded messages to the entire class. Note and discuss changes in content, changes in words, times, and names, additions, and deletions that occurred each time the message was relayed from one student to the next. Discuss how these changes might relate to such factors as the sender's personality, his/her understanding of the situation, and the evaluation of the message receiver.

4. To illustrate that each person sees and remembers the same situation differently and that people communicate their perceptions of the same scene differently, obtain an illustration or photo containing numerous objects or activities. Select three to five students to participate in the following demonstration.

- Give each student a copy of the illustration. Ask them to leave the room to study the illustration, instructing them not to discuss the contents of the illustration among themselves.
- One at a time, have each student return to the room and describe the illustration to the rest of the class. As each description is given, have the class take notes.
- At the conclusion of the demonstration, show the illustration to the entire class. Discuss any major differences in the various descriptions. Was the illustration what the class expected to see based on the descriptions? What did the activity show about how a person's individual perception influences his/her communication of a given situation?
- Show the filmstrip *The Receiving Process* as a follow-up to this activity.

5. Ask a telephone company representative to demonstrate the proper way to use the telephone, emphasizing telephone courtesy.

6. Have students place and receive calls using the teletrainer and evaluate one another's performance.

ALTERNATE LEARNING ACTIVITIES:

1. Assign a group of students to construct a bulletin board display using pictures, advertisements, and other materials relating to communication skills.

2. Divide class into groups of three or four students each. Ask each group to prepare an oral presentation on a different health career, using career pamphlets and related materials. Ask each group to include:
   - Type of training required
   - "Career ladder" steps involved
   - Where jobs are available
   - Results of an interview with an individual involved in the occupation

3. Play one or more of the cassettes listed on page 227; discuss.

SUGGESTED EVALUATION MEASURES:

1. Evaluate students' class discussion on elements of empathy, honesty, self-understanding, and patience.
2. Test students on information presented through audio-visual presentations.
3. Evaluate students' panel presentations.
4. Evaluate role-playing in interview situations. Have students make up the questions, record the interview, and replay the interview for class discussion.
5. Distribute copies of the Suggested Vocabulary List and ask students to submit written definitions for evaluation.

SUGGESTED VOCABULARY LIST:

1. Acceptance
2. Attitude
3. Authority
4. Barriers to communication
5. Communication
6. Cooperation
7. Courtesy
8. Dependability
9. Ethical behavior
10. Ethics
11. Non-verbal communication
12. Perception
13. Relationships
14. Respect
15. Tact
16. Tolerance
17. Trustworthiness
18. Value
19. Verbal communication

MESSAGE FOR SUGGESTED LEARNING ACTIVITY #3

Remind everyone that Dr. Smith's studies on the cancer patients begin today. No one is to have food until 12 o'clock. The student nurses will be on the floor today. They should be here around 9 o'clock. Any help you can give them will be appreciated, but any questions they may have, other than about our routine, should be referred to their instructor, Mrs. Jones. I have a meeting up to 10 o'clock. At the meeting, Miss Brown will review the new charting rules, which, as you know, start on Monday, the first. Finally, we should get together tomorrow morning or afternoon to plan our staff picnic, which is to be Sunday, the 20th, at Washington Park.

SOURCES OF INSTRUCTIONAL AIDS

TEXTS

Activity Director's Guide
Illinois Department of Public Health, Division of Health Facilities, Rehabilitation Section, 4398 South Jeffory Street, Springfield, Illinois 62707.

Anatomy and Physiology
Edwin B. Steen and Ashley Montague. 2 volumes. Barnes and Noble, New York (1970).

Anatomy of the Human Body
Lea and Febiger, Philadelphia (1973).

Atlas of Human Anatomy
Franz Frohse, et al. Barnes and Noble/Harper and Row, New York (1961).

Basic Concepts in Anatomy and Physiology
(A Programmed Presentation) Catherine Parker Anthony, R.N. C.V. Mosby Company, 11830 Westline Industrial Drive, St. Louis, Missouri 63141 (1973).

Basic Human Anatomy
C.E. Tobin. McGraw-Hill, New York (1973).

Basic Laboratory Technology for the Medical Laboratory Technician
Linne. McGraw-Hill, New York.

Basic Pharmacology for Nurses
Squire/Welch. C.V. Mosby Company, 11830 Westline Industrial Drive, St. Louis, Missouri 63141 (1973).

Basic Science for Health Careers
Karl S. Wittman. McGraw-Hill, New York (1976).

Being a Nursing Aide
Hospital Research and Education Trust. Robert J. Brady Company, Bowie, Maryland (1976).

Body Structure and Functions
Elvira Ferris and Esther G. Skelly. Delmar Publishers (1973).

Care of the Adult Patient
Dorothy Smith and Claudia D. Gips. J.B. Lippincott Company, Philadelphia, Pennsylvania 19105.

Careers in Focus
Charles S. Winn. McGraw-Hill/Gregg Division (1977).

Careers in Hospital Administration, Maintenance, and Medical Secretarial Services
Gordon Lebowitz. Fairchild Publications (1975).

Careers in Therapy, Medical Technology, and Nutrition
Gordon Lebowitz. Fairchild Publications (1974).

The Case of the Geriatric Patient
E.V. Cowdry and F.U. Steinberg. C.V. Mosby Company, 11830 Westline Industrial Drive, St. Louis, Missouri 63141.

The Complete Medical Guide
Benjamin F. Miller. Simon and Schuster, New York (1967).

Cumulative Career Index
(An annual compilation with quarterly supplements) Chronical Guidance Publications, Inc., Moravia, New York 13118.

Death and Dying
Elizabeth Kubler-Ross. Whiston Publishing (1976).

Dental Assisting
Alabama Materials Unit, Vocational-Industrial Education Department, P.O. Box 2847, University, Alabama 35486.

Dental Hygiene: Detection and Removal of Calculus
Reston Publishing Company, University of California, Los Angeles, California 90025 (1973).

Dental Laboratory Technology
Nicholas Martinelli. C.V. Mosby Company, 11830 Westline Industrial Drive, St. Louis, Missouri 63141.

Developing the Art of Understanding: A Guide for Nursing Students
Margaret Anne Johnson. Springer Publishing Company, New York (1971).

Dictionary of Occupational Titles
2 volumes. Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Discovering You
Charles S. Winn and C. Healy. McGraw-Hill/Gregg Division (1976).

Dorland's Medical Dictionary
W.B. Saunders Company, Philadelphia (1969).

Emergency Medical Guide
John Henderson. McGraw-Hill/Blakiston Division, New York (1969).

Essentials of Neurology
John N. Walton. J.B. Lippincott, Philadelphia (1971).

Evaluative Report on Phase I of the Secondary Schools Project for an Introduction to the Allied Health Professions
Clarence Fielstra and Barbara Rosenquist. U.S. Office of Education, University of California, Los Angeles (1971).

Evaluative Report on Phase II of the Secondary Schools Project for an Introduction to the Allied Health Professions
Clarence Fielstra and Barbara Chrispin. U.S. Office of Education, University of California, Los Angeles (1972).

Exploring Health Occupations
Watson and Arns. McGraw-Hill/Gregg Division, St. Louis (1976).

Exploring Occupations in Personal Services, Hospitality, and Recreation
Charles S. Winn and B.J. Sethne. McGraw-Hill/Gregg Division, St. Louis (1976).

Exploring Occupations in Public and Social Services
Charles S. Winn. McGraw-Hill/Gregg Division, St. Louis (1976).

Family Development Series: Health, Safety and Sanitation
Stephen Udvari and Janet Laible. Steck-Vaughn Company (1973).

Frazer's Anatomy of the Human Skeleton
A.S. Breathnach. Little, Brown and Company, Boston (1965).

Fundamental Dental Laboratory Procedures
University of California, Los Angeles 90024.

Fundamentals of Nursing
Elinor Fuerst and LuVerne Wolff. J.B. Lippincott, Philadelphia (1964).

The Great Doctors
Robert Silverbig. Putnam (1964).

Great Men in Medicine
Ruth F. Hume. Random House (1961).

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Southern Illinois University
Carbondale, Illinois 62901

A Career Program in Practical Nursing
Rend Lake College
Ina, Illinois 62846

Careers in Health Science Librarianship
Medical Library Association
191 North Michigan Avenue
Chicago, Illinois 60611

Careers in Secretarial Science
Rend Lake College
Ina, Illinois 62846

Careers in X-Ray Technology
American Society of Radiologic Technologists
645 North Michigan Avenue
Chicago, Illinois 60611

The Clinical Psychologist
American Psychological Association
1200 South 17th Street, N.W.
Washington, D.C. 20036

Counselor's Guide: Developing Your Study Skills
Guidance Associates
757 Third Avenue
New York, New York 10017

Dentisty: Preserving Oral Health
Health Careers Council of Illinois
410 North Michigan Avenue
Chicago, Illinois 60611

Guidelines for Utilizing the Extended Campus Method
Occupational Consulting Unit
Department of Adult, Vocational and Technical Education
Illinois Office of Education
100 North First Street
Springfield, Illinois 62777

Health Careers Film Guide
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

(OR) Office of Information
Bureau of Health Manpower Education
National Institutes of Health
Bethesda, Maryland 20014

Health Education Program Directory
Health Education Commission
Board of Higher Education
State of Illinois

How You Can Become a Better Student
Guidance Associates
757 Third Avenue
New York, New York 10017

In Choosing a Career—Consider Executive Housekeeping
American Hospital Association
840 North Lake Shore Drive
Chicago, Illinois 60611

Inhalation Therapy
Health Careers Council of Illinois
410 North Michigan Avenue
Chicago, Illinois 60611

Initiation to Achievement
American Management Association
1515 Broadway
New York, New York 10036

IVSO Local Advisor's Handbook
Illinois Vocational Student Organization
Department of Adult, Vocational and Technical Education
Illinois Office of Education
100 North First Street
Springfield, Illinois 62777

Jobs for Which Apprenticeships Are Available
U.S. Department of Labor
Bureau of Labor Statistics
Washington, D.C. 20212

Jobs for Which a College Education Is Usually Required
U.S. Department of Labor
Bureau of Labor Statistics
Washington, D.C. 20212

Jobs for Which a High School Education Is Generally Required
U.S. Department of Labor
Bureau of Labor Statistics
Washington, D.C. 20212

Jobs for Which a High School Education Is Preferred But Not Essential
U.S. Department of Labor
Bureau of Labor Statistics
Washington, D.C. 20212

Jobs for Which Junior College, Technical Institute or Other Specialized Training Is Usually Required
U.S. Department of Labor
Bureau of Labor Statistics
Washington, D.C. 20212

The Medical Assistant Program
Department of Public Aid
222 South College Street
Springfield, Illinois 62704

Medical Careers Handbook—Horizons Unlimited
American Medical Association
535 Dearborn Street
Chicago, Illinois 60610

Medical Illustrator
Mealth Careers Council of Ohio
P.O. Box 5574
Columbus, Ohio 43221

Medical Record Librarian
American Association of Medical Record Librarians
2111 East Chicago Avenue
Chicago, Illinois 60611

Medical Records
Health Careers Council of Illinois
410 North Michigan Avenue
Chicago, Illinois 60611

Medical Technology
Mundelin College/Chicago
6363 North Sheridan Road
Chicago, Illinois 60660

Memo to Parents
Metropolitan Life Insurance Company
Health and Welfare Division
1 Madison Avenue
New York, New York 10010

The Mental Health Technician
National Association of Human Services Technologies
1127 Eleventh Street
Sacramento, California 95814

The Music Therapist
National Association for Music Therapy
P.O. Box 610
Lawrence, Kansas 66044

Nurse Aide
Belleville Area College
2555 West Boulevard
Belleville, Illinois 62221

The Occupational Therapist
American Occupational Therapy Association
6000 Executive Boulevard, Suite 200
Rockville, Maryland 20852

Orientation to Health Occupations—Medical Careers Handbook
American Hospital Association
535 Dearborn Street
Chicago, Illinois 60610

Other Careers in Dental Health
Health Careers Council of Illinois
410 North Michigan Avenue
Chicago, Illinois 60611

The Patient's Bill of Rights
American Hospital Association
840 North Lake Shore Drive
Chicago, Illinois 60611

A Patient's Bill of Rights for Long-Term Care Facilities
Health Care Facility Consultants
Box 1454
Aberdeen, South Dakota 57401

Podiatry
Health Careers Council of Illinois
410 North Michigan Avenue
Chicago, Illinois 60611

Practical Nurse Education
Health Careers Council of Illinois
410 North Michigan Avenue
Chicago, Illinois 60611

Predental, Premedical, and Preveterinary Studies
Health Professions Information Office
Southern Illinois University
Carbondale, Illinois 62901

Premedical Technology
Health Professions Information Office
Southern Illinois University
Carbondale, Illinois 62901

Prephysical Therapy—Physical Therapy Assistant Program
Health Professions Information Office
Southern Illinois University
Carbondale, Illinois 62901

Psychology
Health Careers Council of Illinois
410 North Michigan Avenue
Chicago, Illinois 60611

Safety Guide for Health Occupations Programs
Bulletin No. 50-174
Department of Adult, Vocational and Technical Education
Illinois Office of Education
100 North First Street
Springfield, Illinois 62777

Sources of Career Information in Hospital and Health Care Administration
Association of University Programs in Health Administration
1755 Massachusetts Avenue, Suite 500
Washington, D.C. 20036

Survey of Careers in Health Services and Occupation Programs in California Secondary Schools
California Department of Education
Vocational Education Section
Bureau of Industrial Education
721 Capitol Mall
Sacramento, California 95814

200 Ways to Put Your Talent to Work in the Health Field
National Health Council, Inc.
1740 Broadway
New York, New York 10019

Veterinary Medicine
Health Careers Council of Illinois
410 North Michigan Avenue
Chicago, Illinois 60611

Where to Get Health Career Information
National Health Council, Inc.
1740 Broadway
New York, New York 10019

Your Career Opportunities in Hospitals
Charles Pfizer and Company, Inc.
Educational Services Department
325 East 42nd Street
New York, New York 10017

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American Association of Colleges of Pharmacy
Office of Student Affairs
8121 Georgia Avenue, Suite 800
Silver Springs, Maryland 20910

Career World Magazine
Curriculum Innovations, Inc.
501 Lake Forest Avenue
Highwood, Illinois 60040

The Health Careers Pathway Series
Health Careers Council of Illinois
400 North Michigan Avenue
Chicago, Illinois 60611

AUDIO-VISUAL AIDS

American Association of Medical Record Librarians
2111 East Chicago Avenue
Chicago, Illinois 60611

Film: *Faith, Facts and Fingertips*

American Cancer Society
219 East 42nd Street
New York, New York 10017

Film: *Embattled Cell*

American Hospital Association
840 North Lake Shore Drive
Chicago, Illinois 60611

Film: *A True Story About Hospitals*

American Institute of Biological Sciences
1401 Wilson Boulevard
Arlington, Virginia 22209

Film: *Microbiology No. 8—Virus*

American Journal of Nursing Company
Film Library
10 Columbus Circle
New York, New York 10019

Film: *Nursing—An Adventure in Learning*

American Medical Record Association
John Hancock Center, Suite 1850
875 North Michigan Avenue
Chicago, Illinois 60611

Filmstrip: *Hospital Job Opportunities*

American Occupational Therapy Association
251 Park Avenue South
New York, New York 10010

Film: *The Occupational Therapy Story: Making a Difference*

American Osteopathic Association
Order Department
212 East Ohio Street
Chicago, Illinois 60611

Film: *American Doctor*

Armed Forces Medical Specialists
Department of the Army
A-V Section, The Pentagon
Washington, D.C. 20301

Film: *Armed Forces Medical Specialists*

Associated Sterling Films
241 East 34th Street
New York, New York 10016

Film: *To Seek—To Teach—To Heal*

Association Films Inc.
866 Third Avenue
New York, New York 10022

Film: *Mobilization of the Human Body*

BFA Educational Media
2211 Michigan Avenue
Santa Monica, California 90404

Film: *The Mechanics of Life: Bones and Joints*

Bray Studios, Inc.
729 Seventh Avenue
New York, New York 10019

Films: *How the Respiratory System Functions*
The Human Throat
Kidneys, Ureters, and Bladder

Career Development Corporation
Glendale, California

Filmstrips: *Health and Safety: Maintaining a Clean Environment*
Observing the Patient

Charles W. Clark Company
Audio-Visual Materials
2564 Smith Street
Farmingdale, New York 11735

Cassette: *Medical Secretary*

Churchill Films
6671 Sunset Boulevard
Los Angeles, California 90028

Films: *Boy to Man*
Girl to Woman
Tissues of the Human Body
Vasectomy

Columbia Broadcasting System
383 Madison Avenue
New York, New York 10017

Films: *Discovery of Anesthesia*
Tragic Hour of Dr. Semmeliveis
The Vision of Dr. Noch
You Are There

Coronet Instructional Films
65 East South Water Street
Chicago, Illinois 60601

Films: *Balance Your Diet for Health and Appearance*
Dealing with Problem People: The Disorderly Worker
Developing Friendships
Developing Self-Reliance
Exercise, Nutrition, and the Diet
Health Heroes: The Battle Against Disease
Healthy Lungs
Home Nursing Fundamentals
The Human Body: Circulatory System
The Human Body: Digestive System
The Human Body: Reproductive System
The Human Body: Respiratory System
The Human Body: Skeleton
Infectious Diseases and Manmade Defenses
Infectious Diseases and Natural Body Defenses
Making Your Own Decisions
Microorganisms That Cause Disease
Muscles and Bones of the Body
Our Senses: What They Do for Us
Planning for Success
Safety in the Chemical Laboratory
Six Murderous Beliefs
Viruses: Threshold of Life
Your Health in the Community

Creative Education Inc.
340 North Milwaukee Avenue
Libertyville, Illinois 60048

Filmstrips: *Disease and Diet*
Heart and Blood Circulation
Unmasking the Germ Assassins

Curriculum Materials Corporation
1319 Vine Street
Philadelphia, Pennsylvania 19107

Filmstrips: *Avoiding Germs*
Care of Eyes and Ears
Cooperating with Others
How You Breathe
Posture
Your Body's Message System
Your Bones
Your Muscles
Your Skin

Dairy Council of California
2775 Cottage Way
Sacramento, California 95825

Film: *Food for Life*

Doubleday MultiMedia
1371 Reynolds Avenue
Santa Ana, California 92714

Film: *Career Technicians*

Educational Activities Inc.
1937 Grand Avenue
Baldwin, New York 11510

Cassettes: *Nutrition and Health* (3 cassettes)
Weight Control

Filmstrips: *Careers in Science*
Doctors in Action
Style of Life

Educational Films Inc.
1023 North La Cienega Boulevard
Los Angeles, California 90069

Filmstrip: *Careers in Health Services*

Educators Progress Service
Randolph, Wisconsin 53956

Pamphlets: *Educators' Guide to Free Films*
Educators' Guide to Free Filmstrips
Educators' Guide to Free Science Materials

Edumed, Inc.
P.O. Box 52
Cincinnati, Ohio 45201

Poster: *Heimlick Maneuver Poster*

Encyclopedia Britannica Educational Corporation
1150 Wilmette Avenue
Wilmette, Illinois 60091

Films: *Antibiotics*
Bacteria—Friend and Foe
Biography of the Unborn
Body Defenses Against Disease
Digestion of Foods
The Ears and Hearing
The Eyes and Their Care
Endocrine Glands
Food and Nutrition
Fundamentals of Diet
Fundamentals of the Nervous System
Heart and Circulation
Heart Disease: Its Major Causes
How Our Bodies Fight Disease
The Human Brain
Immunization
Mechanisms of Breathing
The Nervous System
The Skeleton
Spinal Column Structure and Functions of Man
Understanding Vitamins
Work of the Blood
The World of Work: Rescue Squad

Eyegate House, Inc.
146-01 Archer Avenue
Jamaica, New York 11435

Cassettes: *Dietetic Technician*
Dietician
Nurse
Nurse Aide
Nutritionist
Occupational Therapist
Psychiatrist
Psychologist

Filmstrips: *Basic Office Practices and Procedures*
Your Bones and Muscles
Your Ears and Hearing
Your Heart and Circulation
Your Lungs and How You Breathe

Florida State Board of Health
Audio-Visual Library
Box 210
Jacksonville, Florida 32233

Films: *Dentistry: Your Magic Step to Career Opportunity*
Health Careers
Hospitals Today
Is a Career in Health Services for You?
Pattern of a Profession

Guidance Associates
757 Third Avenue
New York, New York 10017

Filmstrips: *Becoming a Man*
Becoming a Woman
Developing Your Study Skills

Illinois Heart Association
Local Chapter

Exhibits: *Rescue Breathing Can Save a Life* (IHA #162 EM 537)
Resuscitant Annie

Film: *Rescue Breathing* (IHA #161 EM 488)

Illinois Hospital Association
840 North Lake Shore Drive
Chicago, Illinois 60611

Films: *Exploring Health Careers*
Introduction to Health Careers

Illinois Office of Education
Department of Adult, Vocational and Technical Education
100 North First Street
Springfield, Illinois 62777

Film: *Illinois Coordinating Council for Vocational Student Organizations*

Illinois Office of Education
Media and Resource Center
100 North First Street
Springfield, Illinois 62777

Films: *Is a Career as a Technician for You?*
Is a Career in the Health Services for You?
World of the Right Size

Jam Dandy Organization
2821 East Grant Boulevard
Detroit, Michigan 48211

Filmstrips: *How Your Ears Work*
Your Food and Digestion
Your Heart and Lungs
Your Skin and Its Care

Learning Arts
P.O. Box 179
Wichita, Kansas 67201

Film: *Learning Arts*
Filmstrip: *Ethics for the Nurse Assistant*

Listening Library Inc.
1 Park Avenue
Old Greenwich, Connecticut 16870

Cassettes: *The Art of Listening* (4 cassettes)
A Career in Dietetics
Medicine—An Occupation for Adults
Opportunities in Pharmacy
Opportunities with a Career in Occupational Therapy
Working as a Paramedic

Filmstrips: *Body Defenses Against Invasion by Disease*
Bones and Muscles
The Circulatory System
The Digestive System
Fighting Cancer
Germ Invaders
How Chemicals and Antibiotics Fight Disease
Invasion by Disease
Lifestyles
Making It in Human Services
Working as a Paramedic

McGraw-Hill Book Company
Blakiston Division
330 West 42nd Street
New York, New York 10036

Filmstrip: *Disinfection and Sterilization*

McGraw-Hill Book Company
Textbook/Film Department
330 West 42nd Street
New York, New York 10036

Films: *Bacteria Good and Bad*
Community Sanitation
Making Our Streets Safe
Preventing and Controlling Fire
The Respiratory System
Safety in the Community
Safety in Shops and Labs

(continued on next page)

McGraw-Hill Book Company
Textbook/Film Department
330 West 42nd Street
New York, New York 10036

Films: (continued from preceding page)
Safety in the Water
The Skin, Hair, and Nails
Your Eyes
Your Posture
(Young American Films)

Human Digestion
Human Reproduction
Endocrine Glands: How They Affect You
Jonas Salk

Filmstrips: *Antibiotics: Disease-Fighting Champions*
The Endocrine System
How Hormones Control the Body
The Nervous System
What Is Digestion?
Work of the Blood

Metropolitan Life Insurance Company
Health and Welfare Division
1 Madison Avenue
New York, New York 10010

Film: *Man Against Microbe*

Minnesota Mining and Manufacturing Company
Visual Products Division
3M Center
St. Paul, Minnesota 55101

Filmstrips: *Areas of Specialization in Health*
Government Agencies and Health
Health Personnel for Community Problems
Skills to Meet Community Health Needs

Transparencies: *Basic Nursing I*

Modern Talking Picture Service, Inc.
1212 Avenue of the Americas
New York, New York 10036

Films: *But More Than This*
Code Blue (emphasis on minority representation in health manpower)
Good Food, Good Health, Good Looks
The Heritage of Operating Room "D"
Mr. Galen Comes to Town
Toward the Victory of Health

Moreland-Latch Ford Productions Ltd.
2298 Yonge Street
Toronto 12, Ontario
Canada

Films: *Endocrine Glands*
Glands and Hormones

Multi-Media Productions, Inc.
P.O. Box 5097
Stanford, California 94305

Cassettes: *The Mental Health Worker*
The Social Service Aide

National Broadcasting Company
30 Rockefeller Plaza
New York, New York 10020

Film: *What Price Health?*

National Film Board of Canada
Canada House
680 Fifth Avenue
New York, New York 10019

Film: *The Quest (Insulin)*

A.J. Nystrom and Company
3333 North Elston Avenue
Chicago, Illinois 60618

Cassette: *The Physical Me*

Pathoscope
Vestal Laboratories
4963 Manchester Avenue
St. Louis, Missouri 63110

Filmstrip: *Hospital Housekeeping's Place on the Hospital Team*

Popular Science Publishing Company
355 Lexington Avenue
New York, New York 10017

Filmstrips: *Antibiotics*
Biochemistry of Enzyme Action
Biochemistry of Vitamin Action
Controlling Fire
How Your Body Fights Disease
How the Heart Works
Human Respiration
Investigations of Bacterial Heredity
The Nutrients in Food
Parasitic Worms
Safe and Sure with Electricity
The Salk Vaccine
The Virus Mystery
The Virus—New Mystery
War Against Cancer
Your Food and Digestion

Public Health Department
Local Office

Charts: *Antidote Chart*
Good Samaritan Act
Immunization Chart

Pyramid School Products
Box 27
Urbana, Illinois 61801

Filmstrip: *The Paramedic*

Society for Visual Education, Inc.
1345 Diversey Parkway
Chicago, Illinois 60614

Filmstrips: *The Circulatory System*
The Glandular System
The Nervous System

South Florida Hospital Association
Audio-Visual Library
Box 210
Jacksonville, Florida 32233

Films: *I Am a Doctor*
In the Medical Laboratory
Medical Technology
The Surgeon

Spenco Health Education Products
P.O. Box 8113
Waco, Texas 76710

Cassette: *Living with Dying*

Techniques Learning Council
921 East Green Street
Pasadena, California 91106

Films: *How to Take Your Patient's Blood Pressure—I* (TLC-3)
How to Take Your Patient's Blood Pressure—II (TLC-4)
How to Take Your Patient's Pulse and Respiration (TLC-2)
How to Take Your Patient's Temperature (TLC-1)

Trainex Corporation
P.O. Box 116
Garden Grove, California 92642

Filmstrips:
- *Effective Listening*
- *Effective Speaking*
- *The Hospital Story*
- *Legal Implications in Nursing*
- *Medical Asepsis*
- *Nonverbal Barriers to Communication*
- *Orientation*
- *The Receiving Process*
- *Sending Process*
- *Sterile Technique and Dressing Change*
- *Verbal Barriers to Communication*

United World Films, Inc.
Educational Film Department
1445 Park Avenue
New York, New York 10029

Films:
- *Circulation*
- *Functions of the Body*
- *Human Skeleton*
- *The Muscular System*
- *Respiration*

Filmstrips:
- *Circulatory Organs*
- *Digestive Organs*
- *Muscles*
- *Respiratory Organs*
- *Smell and Hearing*
- *Touch, Taste, and Vision*

University of California
Extension Media Center
Berkeley, California 94720

Film: *On Becoming a Nurse Psychotherapist*

INFORMATION RESOURCES

Alexander Graham Bell Association for the Deaf
1537 Thirty-Fifth Street, N.W.
Washington, D.C. 20007

American Academy of Family Physicians
Volker Boulevard at Brookside
Kansas City, Missouri 64112

American Academy of Pediatrics
1891 Hinman Avenue
Evanston, Illinois 60204

American Association of Colleges of Pharmacy
8121 Georgia Avenue
Silver Springs, Maryland 20910

American Association for Gifted Children
15 Gramercy Park
New York, New York 10003

American Association for Health, Physical Education and Recreation
1201 Sixteenth Street, N.W.
Washington, D.C. 20036

American Association for Inhalation Therapy
3554 Ninth Street
Riverside, California 92501

American Association of Medical Assistants
200 East Ohio Street
Chicago, Illinois 60611

American Association of Nurse Anesthetists
111 East Wacker Drive, Suite 929
Chicago, Illinois 60601

American Association of Ophthalmology
1100 Seventeenth Street, N.W.
Washington, D.C. 20036

American Association for Respiratory Therapy
7411 Himes Place
Dallas, Texas 75235

American College of Hospital Administrators
840 North Lake Shore Drive
Chicago, Illinois 60611

American College of Nurse Midwives
1000 Vermont Avenue, N.W.
Washington, D.C. 20005

American College of Obstetricians and Gynecologists
79 West Monroe
Chicago, Illinois 60603

American Dental Assistants Association
211 East Chicago Avenue
Chicago, Illinois 60611

American Dental Association
211 East Chicago Avenue
Chicago, Illinois 60611

American Dental Hygienists' Association
211 East Chicago Avenue
Chicago, Illinois 60611

American Diabetes Association, Inc.
18 East 49th Street
New York, New York 10017

American Dietetic Association
620 North Michigan Avenue
Chicago, Illinois 60611

American Foundation for the Blind
15 West 16th Street
New York, New York 10011

American Genetic Association
1507 M Street, N.W.
Washington, D.C. 20005

American Heart Association, Inc.
44 East 23rd Street
New York, New York 10010

American Hospital Association
840 North Lake Shore Drive
Chicago, Illinois 60611

American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

American Medical Record Association
875 North Michigan Avenue
Chicago, Illinois 60611

American Nurses' Association
2420 Pershing Road
Kansas City, Missouri 64141

American Occupational Therapy Association
251 Park Avenue, South
New York, New York 10010

American Optometric Association
7000 Chippewa
St. Louis, Missouri 63119

American Orthoptic Council
555 University Avenue
Toronto, Canada M5G 1X8

American Orthotic and Prosthetic Association
1440 N Street, N.W.
Washington, D.C. 20005

American Osteopathic Association
212 East Ohio Street
Chicago, Illinois 60611

American Personnel and Guidance Association
1607 New Hampshire Avenue, N.W.
Washington, D.C. 20009

American Pharmaceutical Association
2215 Constitution Avenue, N.W.
Washington, D.C. 20037

American Physical Therapy Association
1156 Fifteenth Street, N.W.
Washington, D.C. 20005

American Podiatry Association
20 Chevy Chase Circle, N.W.
Washington, D.C. 20005

American Psychiatric Association
1700 Eighteenth Street, N.W.
Washington, D.C. 20009

American Psychoanalytic Association
1 East 57th Street
New York, New York 10022

American Psychological Association
1200 Seventeenth Street, N.W.
Washington, D.C. 20036

American Public Health Association, Inc.
1740 Broadway
New York, New York 10019

American Registry of Radiologic Technologists
2600 Wayzata Boulevard
Minneapolis, Minnesota 55405

American Society of Medical Technologists
555 West Loop South, Suite 200
Bellaire, Texas 77401

American Society of Radiologic Technologists
500 North Michigan Avenue, Suite 836
Chicago, Illinois 60611

American Speech and Hearing Association
9030 Old Georgetown Road
Washington, D.C. 20014

Association of American Medical Colleges
1 Dupont Circle, N.W., Suite 200
Washington, D.C. 20036

Association of Medical Illustrators
Medical College of Georgia
Augusta, Georgia 30902

Association of Operating Room Nurses, Inc.
The Denver Technological Center
8085 East Prentice Avenue
Englewood, Colorado 80110

Association for Physical and Mental Rehabilitation
1472 Broadway
New York, New York 10036

Association of Schools of Public Health
1825 K Street, N.W., Suite 707
Washington, D.C. 20006

Association of University Programs in Hospital Administration
1 Dupont Circle, N.W., Suite 420
Washington, D.C. 20036

Council on Social Work Education
345 East 46th Street
New York, New York 10017

Health Careers Council of Illinois
410 North Michigan Avenue
Chicago, Illinois 60612

Health Occupations Consultants
Department of Adult, Vocational and Technical Education
Illinois Office of Education
100 North First Street
Springfield, Illinois 62777

Illinois Association for the Mentally Retarded
Ridgely Building
504 East Monroe
Springfield, Illinois 62701

Illinois College of Podiatric Medicine
1001 North Dearborn Street
Chicago, Illinois 60610

Illinois Dental Laboratory Association
550 Frontage Road
Northfield, Illinois 60093

Illinois Department of Mental Health
401 State Office Building
Springfield, Illinois 62706

Illinois Department of Public Health
535 West Jefferson
Springfield, Illinois 62706

Illinois Department of Registration and Education
216 East Adams
Springfield, Illinois 62701

Illinois Hospital Association
840 North Lake Shore Drive
Chicago, Illinois 60611

Illinois State Veterinary Medical Association
921 North Lake Street
Aurora, Illinois 60406

Institute of Gerontology
University of Iowa
Iowa City, Iowa 52240

Metropolitan Life Insurance Company
Health and Welfare Division
1 Madison Avenue
New York, New York 10010

National Association of Hearing and Speech Agencies
919 Eighteenth Street, N.W.
Washington, D.C. 20006

National Association of Human Services Technologies
1127 Eleventh Street, Main Floor
Sacramento, California 95814

National Association of Mental Health
10 Columbus Circle
New York, New York 10019

National Association for Mental Health, Inc.
1800 North Kent Street
Arlington, Virginia 22209

National Association for Practical Nurse Education and Service, Inc.
1465 Broadway
New York, New York 10036

National Association for Retarded Citizens
P.O. Box 6109
2709 Avenue E East
Arlington, Texas 76011

National Association of Social Workers
Medical Social Work Section
1 Park Avenue
New York, New York 10016

National Council for Homemaker-Home Health Aide Service, Inc.
67 Irving Place, 6th Floor
New York, New York 10003

National Dairy Council
Nutrition Education Division
111 North Canal Street
Chicago, Illinois 60606

National Dental Hygiene Association
934 Shoreham Building
Washington, D.C. 20005

National Federation of Licensed Practical Nurses, Inc.
250 West 57th Street
New York, New York 10019

National Health Council, Inc.
1740 Broadway
New York, New York 10019

National Institute of Health
Bureau of Health Manpower Education
Office of Information
Bethesda, Maryland 20014

National League of Nursing
Committee on Careers
10 Columbus Circle
New York, New York 10019

National Society for the Prevention of Blindness
79 Madison Avenue
New York, New York 10016

Registry of Medical Technologists
701 South Wolcott Street
Chicago, Illinois 60612

Rehabilitation Institute of Chicago
Occupational Therapy Department
345 East Superior Street
Chicago, Illinois 60611

Science Research Associates, Inc.
Guidance Materials Department
259 East Erie Street
Chicago, Illinois 60611

U.S. Department of Health, Education and Welfare
National Institute of Health
National Library of Medicine
Audio-Visual Center
Atlanta, Georgia 30333

U.S. Department of Health, Education and Welfare
Social and Rehabilitation Service
Administration on Aging
Washington, D.C. 20202

U.S. Public Health Service
Communicable Disease Center
605 Volunteer Building
Atlanta, Georgia 30333

University of Illinois
College of Pharmacy
833 South Wood
Chicago, Illinois 60612